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GOVERNMENT OF INDIA
RAILWAY DEPARTMENT
(RAILWAY BOARD)

Report by the Railway Board

ON

INDIAN RAILWAYS

FOR

1944-45

Volume I

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Main Statistics compared for seven years

I.—*All Indian railways (Classes I, II and III).*

Items.		1938-39. (Pre-war).	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	**1944-45.**
Gross earnings	(crores) Rs.	107·15	111·50	126·36	144·69	167·89	*199·32	**232·62**
Total Working expenses.	(crores) Rs.	71·18	72·20	73·19	80·33	86·52	*114·11	**148·79**
Operating ratio	per cent.	66·44	64·75	57·92	55·51	51·53	*57·25	**63·97**
Number of passengers originating.	(millions)	530·62	529·67	575·72	623·16	622·26	*789·87	**926·70**
Passenger miles	(millions)	18,742·79	18,522·05	19,928·62	22,020·11	24,352·76	*32,506·07	**37,590·72**
Earnings from carriage of passengers.	(crores) Rs.	30·73	30·47	34·14	39·69	48·80	*67·17	**76·45**
Average earnings per passenger mile.	Pies	3·15	3·16	3·29	3·46	3·85	3·97	**3·90**
Freight tons originating.	(millions)	88·36	92·18	92·78	97·00	95·26	*96·68	**101·71**
Freight ton miles	(millions)	22,158·84	23,492·46	25,288·50	28,043·12	28,106·50	*28,379·06	**28,410·56**
Earnings from carriage of goods.	(crores) Rs.	68·57	72·56	81·48	89·63	97·21	*103·23	**114·46**
Average earnings per freight ton mile.	Pies	5·98	5·93	6·19	6·14	6·64	*6·98	**7·74**
Total train miles	(millions)	197·04	198·84	200·90	205·45	176·82	172·58	**179·89**
Gross earnings per train mile.	Rs.	5·40	5·64	6·33	7·10	*9·61	*11·71	**13·10**
Working expenses per train mile.	Rs.	3·58	3·65	3·66	3·93	*4·94	*6·69	**8·37**
Net earnings per train mile.	Rs.	1·82	1·99	2·67	3·17	*4·67	*5·02	**4·71**
Net earnings per mean mile worked.	Rs.	8,619	9,427	12,746	15,578	*19,815	*20,804	**20,389**

*Revised figures.

II.—*Indian Government Railways.*

(The figures include statistics of worked lines of Indian Government-owned railways but exclude Indian Government-owned portions worked by the Jodhpur and His Exalted Highness the Nizam's State Railways).

Items.		1938-39. (Pre-war).	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	**1944-45.**
Gross earnings	(crores) Rs.	99·07	103·02	117·23	134·68	155·74	184·69	**216·56**
Total Working expenses.	(crores) Rs.	66·38	67·22	68·13	75·12	80·57	107·08	**141·10**
Operating ratio	Per cent.	67·00	65·25	58·12	55·78	51·73	57·98	**65·16**
Number of passengers originating.	(millions)	477·97	477·13	519·65	563·70	556·89	706·11	**829·41**
Passenger miles	(millions)	17,203·85	16,989·60	18,282·06	20,219·60	22,256·10	29,698·15	**34,493·91**
Earnings from carriage of passengers.	(crores) Rs.	27·89	27·65	30·99	36·21	44·51	61·26	**69·83**
Average earnings per passenger mile.	Pies	3·11	3·12	3·25	3·44	3·84	3·96	**3·87**
Freight tons originating.	(millions)	80·56	84·15	85·26	88·64	86·01	87·21	**92·23**
Freight ton miles	(millions)	21,160·56	22,397·66	24,201·63	26,821·49	26,785·35	27·125·60	**27,068·32**
Earnings from carriage of goods.	(crores) Rs.	63·95	67·55	76·26	6·01	90·64	96·07	**106·78**
Average earnings per freight ton mile.	Pies	5·80	5·79	6·05	6·01	6·50	6·80	**7·57**
Total train miles	(millions)	179·05	180·44	182·56	187·11	160·04	156·58	**163·51**
Gross earnings per train mile.	Rs.	5·51	5·71	6·42	7·20	9·73	11·79	**13·24**
Working expenses per train mile.	Rs.	3·69	3·73	3·73	4·02	5·03	6·84	**8·63**
Net earnings per train mile.	Rs.	1·82	1·98	2·69	3·18	4·70	4·96	**4·61**
Net earnings per mean mile worked.	Rs.	9,613	10,577	14,524	17,741	22,624	23,443	**22,778**

INTRODUCTORY NOTE

1. The Railway Board's annual report on Indian Railways is prepared for the financial year, *i.e.*, from 1st April of one year to the 31st March of the year following.

Volume I is a narrative report dealing with the various aspects of railway working such as general administration, financial results, improvements in, and additions to, rolling stock, commercial and operating methods, recruiting training and welfare of staff and facilities provided for the convenience of the travelling public.

Volume II contains financial and statistical summaries and statements covering the main heads of capital and revenue accounts and the complete range of railway working.

2. For the information of those who are not conversant with the value of Indian currency and the units thereof, the following details are given :—

(*a*) One *lakh* equals one hundred thousand.

(*b*) One *crore* equals one hundred lakhs.

(*c*) One *anna* equals 1/16th of a rupee.

(*d*) One *pie* equals 1/12th of an anna.

The approximate value in English coinage of a rupee at the present rate of exchange is one shilling and six pence.

3. For statistical purposes, Indian railway systems are classified as follows :—

Class I.—Railways with gross earnings of not less than Rs. 50 lakhs a year.

Class II.—Railways with gross earnings of less than Rs. 50 lakhs a year, but exceeding Rs. 10 lakhs.

Class III.—Railways with gross earnings of not more than Rs. 10 lakhs a year.

A detailed list of the railways in each class will be found in Statement 5 (pages 43 to 47) of Volume II of this Report.

4. The Madras and Southern Mahratta and the South Indian Railways were purchased and brought under Indian Government management from the 1st April 1944 and the Bengal Nagpur Railway from the 1st October 1944.

CONTENTS.

Paragraph No.		Page No.
	Introductory Note	ii
	CHAPTER I.—GENERAL REVIEW.	
1.	Monsoon conditions and agricultural results	1
2.	Receipts	1
3.	Railways and the Legislature	2
4.	Railway Budget	2
5.	Standing Finance Committee for Railways	3
6.	Acquisition of Company Railways by State	3
6.1.	Termination of the Bengal Nagpur Railway Contract	4
7.	Central Advisory Council for Railways	4
8.	Local Railway Advisory Committees	4
9.	Railway Rates Advisory Committee	5
10.	Railways and the war	5
11.	" India's Life line: Her Railways " Exhibition	5
12.	Damages caused to the railways by floods and cyclones	6
13.	Air Raid Precautions on Railways	6
14.	Creation of additional posts	7
14.1.	Re-organisation of Establishment Directorate	7
14.2.	Re-organisation of Mechanical and Stores Directorates	7
14.3.	Re-organisation of the Traffic Directorate	7
15.	Post-war Planning	7
16.	Inglis-Appleton Mission and its Report	8
17.	Water Softening Committee	9
	CHAPTER II.—FINANCIAL RESULTS.	
18.	Trade Review	10
	A.—Railway Convention Committee and Railway Depreciation Fund Committee, 1944.	
19.	Railway Convention Committee	10
20.	Railway Depreciation Fund Committee, 1944	10
	B.—Financial Results of Indian Government Railways (including worked lines).	
21.	Financial results of working	11
22.	Net traffic receipts, interest charges and surplus	12
23.	Traffic receipts	12
24.	Working expenses	12
25.	Losses and gains	13
26.	Allocation of expenditure on Rolling Stock, Military sidings, etc., between Capital, Revenue and Depreciation Reserve Fund	13
27.	Special provision for arrears of maintenance	14
28.	Effects of war on earnings and working expenses and growth of receipts and expenditure	14
29.	Analysis of Financial results of working	15
	C.—General Results of Working of all Indian Railways.	
30.	Analysis of Earnings	16
30.1.	Passenger Earnings	16
30.2.	Goods Earnings	16

Paragraph. No.		Page No.
	CHAPTER III.—NEW CONSTRUCTION AND ENGINEERING WORKS.	
31.	Capital Expenditure	17
32.	Mileage of Lines opened or sanctioned in 1944-45	18
33.	Surveys and Lines under construction during 1944-45	18
34.	Lines closed during 1944-45	18
35.	Engineering Works	18
35.1.	Open Line Improvements	18
35.2.	Important Works sanctioned	20
35.3.	Bridge Strengthening and Protection Programme	20
36.	Wireless Communications on Railways	21
37.	Improvements to Line Telecommunications on Railways	22
	CHAPTER IV.—TRANSPORTATION.	
	A.—Operating.	
38.	Volume of traffic handled	23
39.	Train miles	23
40.	Passenger trains	24
40.1.	Punctuality of passenger trains	24
41.	Goods trains	25
41.1.	Goods train speeds	25
41.2.	Goods train loads	25
42.	Stock usage	25
42.1.	Engine usage	26
42.2.	Wagon usage	26
42.3.	Reduction in wagons loaded with "smalls"	27
43.	Wagon position in the pool	27
43.1.	Broad Gauge Wagon Pool	27
43.2.	Metre Gauge Wagon Pool	27
44.	Neutral examination of interchanged stock	27
45.	Operating—General	27
46.	Working of the organisation of the Director General of Railways, Calcutta Area	28
47.	Transport of coal	28
47.1.	Coal supply and coal stock situation	29
	B.—Commercial.	
48.	Alterations in rates and fares	29
49.	Efforts to secure better wagon loads	30
50.	Co-ordination of rail, road and water transport	31
51.	Closer contact with business interests	33
52.	Claims for compensation and refunds	33
53.	Prevention of ticketless travel	34
54.	Mela traffic	34
	CHAPTER V.—RAILWAY COLLIERIES.	
55.	Transfer of the control of Railway collieries to the Supply Department	36
56.	Output from Principal Railway Collieries	36
57.	Coal mined in India	36
58.	Coal despatched by rail	36
	CHAPTER VI.—ROLLING STOCK AND MATERIALS.	
59.	Additions to equipment	37
59.1.	Engines	37
60.	Manufacture of Boilers and Locomotives in India	37

Paragraph No.		Page No.
	CHAPTER VI.—ROLLING STOCK AND MATERIALS—*contd.*	
61.	Rationalisation of Workshop manufacturing capacity	38
62.	War Branch	38
62.1.	Rolling Stock and Ambulance Trains	38
63.	Supply of rails and fishplates from indigenous sources	38
64.	Value of railway materials purchased	38
64.1.	Purchase of wooden sleepers	39
65.	In-take of indigenous goods	39
66.	Value of Stores Purchased through the Supply Department	40
67.	Value of Stores purchases controlled by the Railway Board	40
68.	Value of lease/lend purchases controlled by the Railway Board	40
69.	Direct Purchases by Railways	40
70.	Stores balances	40
71.	Engine Headlights situation	41
72.	Timber supply situation	41
73.	Train lighting lamps situation	41
74.	Supply situation of other vital stores or components of first importance	41
75.	Situation regarding theft of Railway property—Carriage fittings, etc.	42
76.	Efforts to obtain fuel economy	42
	CENTRAL STANDARDS OFFICE FOR RAILWAYS.	
77.	Civil Engineering Branch	44
78.	Mechanical Engineering Branch	44
79.	Specifications Branch	45
80.	Standardization Committees	45
81.	Research and Development	46
81.1	Civil Engineering Branch	46
81.2.	Specifications Branch	46
81.3.	Mechanical Research Branch	46
	CHAPTER VII.—STAFF.	
82.	Number of staff	47
83.	Cost of staff	47
84.	Indianisation	49
84.1.	Indian Government Railways	49
85.	Review of the progress made since 1934	49
86.	Representation of minority communities in subordinate railway services	52
87.	North Western Railway Service Commission	53
88.	Anti-corruption Organisation	54
89.	Organised Labour—All-India Railwaymen's Federation	54
90.	Grain and Grocery Shops	54
91.	Dearness Allowance	55
92.	Defence of India Corps (Railways)	56
93.	Railway staff and the war	57
94.	Introduction of weekly rest for gangmen	57
	CHAPTER VIII.—AMENITIES FOR PASSENGERS.	
95.	General	58
96.	Introduction of new types of third class carriages	58
97.	Measures taken to ensure security for women passengers	58
98.	Booking offices and out-agencies	58
99.	Waiting rooms and waiting halls	58
100.	Catering	58
101.	Steps taken to make available maximum passenger accommodation in running trains	59
102.	Cleanliness of coaching stock	59

PAGE No.

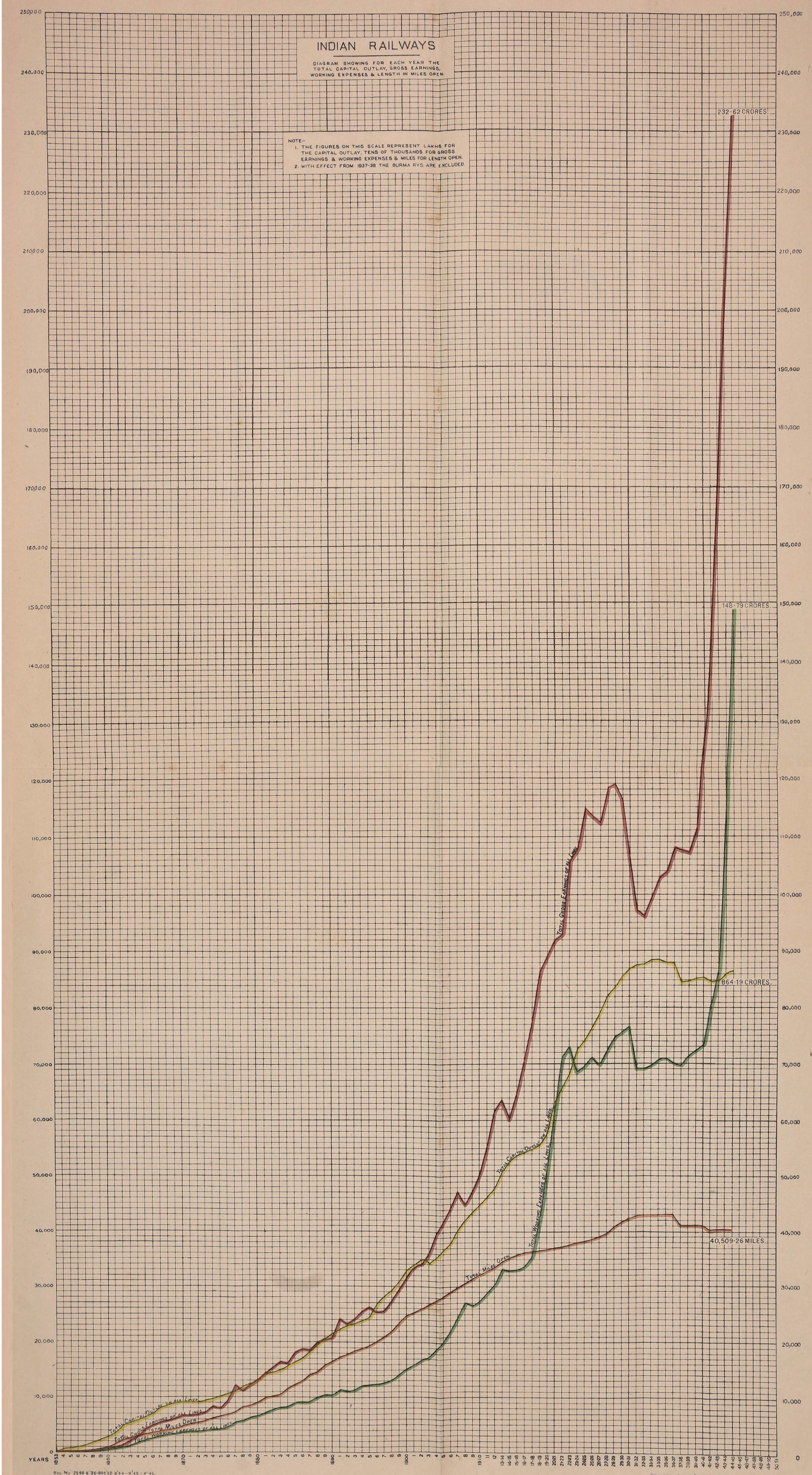
APPENDICES.

A.—Resolution regarding the Separation of Railway from General Finances adopted by the Legislative Assembly on the 20th September 1924 and Convention Resolution of 1943 . . . 60

B.—Officers of the Railway Department (Railway Board) and attached offices 62

DIAGRAM.

Total capital outlay, gross earnings, working expenses and length in miles . . . . After page vi



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CHAPTER I.

GENERAL REVIEW.

1. Monsoon conditions and agricultural results.—The monsoon of 1944 arrived at the usual time, and though comparatively weak at the outset, it gathered strength subsequently, giving abundant rains practically over the whole country. The rainfall was particularly heavy in Gujrat, Rajputana, Sind and west Central India, causing floods and resulting in loss of crops and property in places. Averaged over the plains of India, the total rainfall during the monsoon period was in excess by 7 per cent. During the retreating period of the monsoon widespread and copious rain was also received, the total rainfall during the period being also in excess by 12 per cent. when averaged over the plains of India. Taking the year as a whole, the rainfall was in moderate to large excess in north-west India, west Central India, Berar, west Central Provinces and south-east Madras but slightly defective in Bengal, the west United Provinces and Malabar. In other parts of the country, the annual rainfall was normal or lightly in excess of it. From the agricultural aspect, the season may be regarded as fairly good on the whole, although crop outturns were generally lower than in the preceding season. The variations in the yield of principal crops are as stated below :—

Rice.—12 per cent. less than the preceding season's crop, which was a bumper one.

Sugarcane.—
Groundnut.—
Castor seed.- } 7 per cent. less than in 1943-44.

Sesamum.—12 per cent. less than in the preceding season, mainly due to decrease in sowings by 11 per cent.

Cotton.—31 per cent. less than in the preceding season's crop, mainly brought about by a decrease of 28 per cent. in area as compared with the preceding year as a result of the "Grow More Food Crops" Campaign.

Jute.—22 per cent. less than in the preceding season resulting mainly from an identical decrease in area.

Wheat (*1943-44 crop*).—12 per cent. less than the bumper yield of 1942-43.

Linseed (*1943-44 crop*).—7 per cent. less than the yield of 1942-43.

Rape and Mustard (*1943-44 crop*).—14 per cent. less than in the preceding season.

2. Receipts.—With the continued stimulus provided by the war, railway earnings for the year 1944-45 soared still higher and established a new record. The gross traffic receipts of Indian Government-owned railways including worked lines amounted to Rs. 216·38 crores, as compared with Rs. 185·43 crores in the previous year, an increase of Rs. 30·95 crores. After meeting all charges including depreciation and interest on capital-at-charge, the year's working resulted in a gain of Rs. 49·89 crores. Out of this surplus Rs. 32 crores were placed to the credit of the General Revenues of the Central Government and the residue, *viz.*, Rs. 17·89 crores was transferred to the Railway Reserve Fund.

A comparison of the results of all Indian Railways with 1943-44 reveals a still further heavy increase in passenger traffic and also a slight increase in goods traffic handled. The total earnings were substantially greater under both the heads. The chief reasons for the increase in total earnings were,

heavy increase in public passengers carried, military traffic, parcels and a continued shift towards higher-rated goods traffic. These large increases have occurred inspite of the reduced passenger services, the publicity campaign against unnecessary travel and a deliberate curtailment of non-essential goods traffic. The actual figures of the units referred to above, compare with the previous year as follows:—

Items.		1943-44.	1944-45	Percentage variations.
Number of passengers carried (millions)		*789·9	**926·7**	+17·3
Passenger miles (millions)		*32,506	**37,591**	+15·6
Earnings from passengers (crores)	Rs.	*67·17	**76·45**	+13·8
Average rate charged per passenger per mile	Pies.	3·97	**3.90**	—1·8
Average miles a passenger was carried	Miles	41·2	**40·6**	—1·5
Freight tons carried (millions)		*96·7	**101·7**	+5·2
Net ton miles (milions)		*28,379	**28,411**	+0·1
Earnings from goods carried (crores)	Rs.	*103·23	**114·46**	+10·9
Average rate charged per ton per mile	Pies.	*6·98	**7·74**	+10·9
Average mile a ton of goods was carried	Miles	*294	**279**	—5·1

* Revised figures.

3. Railways and the Legislature.—Out of a total number of 3,395 questions asked in both the Houses during the year, 523 or 15 per cent. were answered by the Railway Department.

In addition to these questions a resolution on the subject of reservation of accommodation on Railways, for the Civilian population was also discussed and withdrawn by the mover.

4. Railway Budget.—The Railway Budget for 1945-46, as approved by the Standing Finance Committee for Railways, was presented in both the Houses of the Legislature on the 15th February 1945. The General discussion on the proposals took place in the Legislative Assembly on the 19th and in the Council of State on the 20th February 1945. The voting on demands for grants commenced on the 20th and was completed on the 23rd February 1945.

The general discussion this year centred mainly round the rolling stock programme and the Government's proposals for financing it, with particular reference to their effect on the railways' contribution to general revenues. Other subjects which figured in the discussion were the Government's policy in regard to railway participation in road transport, overcrowding in trains, inquiries into railway accidents, the inconveniences of third class travel, Indianisation of the higher grades of the railway services, development of locomotive and boiler production in India, post-war rehabilitation and development of Railways, increase of wages on railways, compulsory extension of provident fund benefits to the lower paid railway employees and the reduction of the hours of work of railway staff.

A cut was moved of the entire sum of Rs. 82 lakhs provided in " Demand No. 6-G—Working Expenses—Miscellaneous Expenses " for Road Services run by Railways to indicate disapproval of the Government's policy of Railways running road-motor services. This particular sum was intended to cover road services operated with the object of relieving congested sections of Railways for the movement of essential goods traffic, the provision of supplementary transport facilities for essential traffic which would not otherwise move, the relief of overcrowding and the conservation of wagon, line and power capacity. Long-term policy was not involved. The discussion in the Assembly, however, was mostly on the long-term policy and the cut was

adopted in February 1945. Government, however, placed a supplementary demand before the House and explained the objects of the particular grant in question and the principles of Government's post-war policy in regard to Railway participation in road transport. It was made clear that Railways did not seek to dominate road transport policy in any way but only proposed to acquire an interest in road services sufficiently substantial to make it possible for them to secure a good co-ordinated rail and road service to the public, and that the joint road-rail companies which might be sponsored by the Central Government would come under the authority of the Provincial Transport Authority under the Motor Vehicles Act, 1939, in the same way as any other road transport company. It was also made clear that if the amount were voted it would be taken as a vote in support of Government's policy of railways participating in road transport companies. After an exhaustive debate on the subject, the supplementary demand was passed by the House. A cut motion to discuss the desirability of judicial inquiries into railway accidents involving loss of human life was not pressed. Four cut motions which had been moved to discuss matters relating to the paucity of Muslims in railway services, the financial position of railways, the non-employment of Oriyas on the Bengal Nagpur Railway and the paucity of Sikhs in railway services were withdrawn. Five cut motions were adopted. They raised the following questions:—

(i) The inconveniences of third class travel.

(ii) The Indianisation of higher grades of railway services and of the Railway Board.

(iii) The inadequacy of the scale of dearness allowances to railwaymen.

(iv) The introduction of an Eight-hour maximum per working day for all Railway staff, including those categories which are not now subject to the Hours of Employment Regulations.

(v) The acquisition by Government of Inland Waterway services in Assam, Bengal and Bihar for being worked as an integral part of the Railway Systems.

5. Standing Finance Committee for Railways.—During the year **1944-45** the Committee met eight times. They scrutinised as usual the proposals for capital and revenue expenditure to be incurred in the year **1945-46** prior to their being placed before the Legislative Assembly. They also discussed the working of grain and grocery shops on railways. In addition the following important subjects were also examined and approved by the Committee:—

(i) The purchase of the Sialkot-Narowal, Hoshiarpur-Doab, Podanur-Pollachi and Dibru-Sadiya railways and the premature termination of the Bengal Nagpur Railway Company's contract.

(ii) The up-grading of the post of Assistant Telegraph Superintendent on the East Indian Railway from Junior to Senior Scale.

(iii) Advance allotments for general purposes stores for 1944-45 sanctioned in excess of the 60 per cent. limit, imposed by the Committee for the placing of advance indents by railways on the basis of the average of the actual purchases for the previous three years.

(iv) The incidence of the cost of works executed during the war.

(v) The allocation of the cost of railway assets built or acquired during the war.

6. Acquisition of Company Railways by State.

According to the Government's decision mentioned in the last year's report the contract of the Dhond-Baramati Railway was terminated on

30th September 1944, and that of the Jacobabad-Kashmor Railway on 31st March 1945. During the current year, Government, also decided to buy the following branch lines:—

(i) Dibru-Sadiya Railway with effect from 1st April 1945. It is a metre gauge line, 95·15 miles in length owned by the Assam Railways and Trading Company, and worked by the Company up to 31st March 1942, when the operational control was taken over by the Bengal and Assam Railway, due to war emergency.

(ii) Podanur-Pollachi Railway with effect from 15th October 1945. It is a metre gauge line, 25 miles in length, owned by the District Board of Coimbatore and worked by the South Indian Railway.

(iii) Hoshiarpur-Doab Branch Railways, with effect from 1st April 1946. These are rebate-aided, broad gauge lines about 91 miles in length, worked by the North Western Railway.

(iv) Sialkot-Narowal Railway with effect from 1st April 1946. It is a rebate-aided, broad gauge line, about 39 miles in length, worked by the North Western Railway.

6.1. Termination of the Bengal Nagpur Railway Contract.—It is a Government-owned Railway but was being managed by the Bengal Nagpur Railway Company under a contract with the Secretary of State terminable on the 31st December 1950. The contract was terminated prematurely and the Railway was brought under Government management with effect from the 1st October 1944.

7. Central Advisory Council for Railways.—Two meetings of the Central Advisory Council for Railways were held during the year. The following subjects were discussed:—

(i) Amalgamation of the Oudh and Tirhut Railway Local Advisory Committees.

(ii) Nomination of members of the Central Advisory Council for Railways to the Local Advisory Committees.

(iii) Anti-corruption measures.

(iv) Overcrowding in trains.

(v) Reduction of the number of classes of passenger accommodation on Railways.

8. Local Railway Advisory Committees.—Meetings of the Local Advisory Committees continued as usual during the year under review. 75 meetings were held during the year as compared with 70 during the previous year. The Members were kept fully in touch with all important problems affecting passenger travel, and the recommendations of Members were given the fullest consideration, and action taken on them as far as possible.

Among the important subjects discussed at these meetings, the following may be mentioned:—

1. Anti-corruption drive.
2. Proposals for Post-war classes of passenger coaches and improvements in design.
3. Time tables and train services.
4. Ticket checking in trains and ticketless travel.
5. "Travel less" campaign.
6. Supply of wagons.

7. Overcrowding in trains.
8. Reservation of accommodation.
9. Speedy settlement of claims.
10. Shortage of small change.
11. Road service for passengers and goods.
12. Lighting in trains and at stations.
13. Rates for foodstuffs at stations.
14. Porterage charges at stations.
15. Separate accommodation for Civil and Military passengers in trains.
16. Amenities to travelling public in trains and at stations.

Sub-committees of Local Advisory Committees also functioned on some Railways to deal with specific problems. In particular, two sub-committees were formed on the Bengal and Assam Railway to enquire and report on allegations of excessive porterage charges being demanded by luggage coolies and of corrupt practices of railway employees at Sealdah station.

9. Railway Rates Advisory Committee.—Dr. Khwaja Sir Mohamed Noor, C.B.E., continued as President. The post of Railway Member and Secretary remained unfilled during the year.

10. Railways and the War.—The contribution of Indian Railways to the war effort rose steadily throughout the year under review and, resources being limited, there was a further curtailment of rail capacity for civilian use. Great difficulty was experienced in the procurement of stores of all kinds, and maintenance, already overdue in most cases, had to be further deferred. The replacement of worn out and missing fittings presented a problem that could not be fully solved with the result that the travelling public was put to much inconvenience. The coal situation also continued to cause anxiety. Supplies were insufficient and poor in quality with the result that for a time the number of engine failures became unduly large and loss of time by trains was a common occurrence.

The necessity for increased supervision was only partially met, as the Army and other Departments could not spare the services of many experienced railwaymen on loan to them for work directly connected with the war. The help of units of the United States of America Military Railway Service in working the northern portion of the metre gauge section of the Bengal and Assam Railway was, therefore, all the more welcome and proved of very great value.

The capacity of Railways being fully taxed and the demand for the carriage of goods and personnel continuing to rise, consideration was given to various means of relieving the congestion and of providing some alternate form of public transport. Rail-road transport schemes, designed to deal with traffic that could not be moved by rail, were, therefore, introduced by a number of Railways.

11. "India's Lifeline: Her Railways" Exhibition.—A Railways Exhibition entitled "India's Lifeline: Her Railways" was held at the Ceremonial Station in New Delhi from 10th March to 25th March 1945. The object of the Exhibition was to depict the enormous task that the Railways of India had been called upon to undertake during the War emergency and to show how Indian Railways succeeded in meeting the phenomenal increase in demands made on them due to the War. It was planned, designed, and produced by the Exhibitions Section of the Information and Broadcasting Department in conjunction with the Railway Board and Railway Administrations and consisted of 16 separate Sections with numerous

working models, cut-out displays, posters, and actual full-size exhibits. The Exhibition was opened by the Hon'ble Sir Edward Benthall, Member for War Transport and Railways, and was open to the public by special invitations. About 80,000 people attended. His Excellency the Viceroy, His Excellency the Commander-in-Chief, and Members of the Viceroy's Executive Council visited the Exhibition and there were also many other distinguished guests such as the Members of the Afghan Mission, Members of the Central Legislatures, and high Civil and Military Officers.

12. Damages caused to the Railways by floods and cyclones.—Damages were caused by rains, floods and cyclones and to a smaller extent by heavy snowfall with the resultant interruption to traffic on almost all the important railway lines during the year under review.

Owing to heavy rains during the varying periods in July, August and September, severe damages to tracks, bridges and buildings were caused to the Railways in Eastern, Western and Central India.

Damages caused by storms on the Bengal and Assam Railway amounted to a total of approximately Rs. 2,05,000.

The North Western Railway suffered from floods at several places in July and August resulting in interruption of through communication on certain sections. On the Kalka-Simla section there was a heavy fall of snow at the beginning of January 1945 resulting in interruption to traffic from the 10th to the 15th January. At Simla Station the heavy snowfall resulted in the collapse of part of the shed on the passenger platform and one of the goods shed, the cost of damages amounting to Rs. 50,000.

The Bombay, Baroda and Central India Railway also suffered from floods at several places both on the Broad Gauge and Metre Gauge Sections. On the main line between Utran and Sayan there were serious breaches due to heavy rains and floods. Through communication was interrupted on the 18th August 1944, both the Up and Down lines becoming unsafe for the passage of trains. Transhipment was also not possible. Through communication was restored on the 30th August 1944 and normal train services on the main line were resumed on the 3rd September 1944. During the period of interruption the Frontier Mail was diverted over a part of the Great Indian Peninsula route.

On the Tapti Valley Railway four serious breaches occurred in August 1944, resulting in interruption of through communication; the cost of damage amounting to Rs. 4½ lakhs approximately.

The less severely affected Railways were the East Indian, Oudh and Tirhut, Nizam's State, South Indian, Madras and Southern Mahratta, Great Indian Peninsula, Bikaner State, Bengal Nagpur and Mysore State Railways.

13. Air Raid Precautions on Railways.—*General.*—During the year under review, the Railway Administrations did not find any difficulty in obtaining the necessary staff and equipment for the Air Raid Precautions work. There were a number of air raids by the enemy on areas served by the railways. In one of these raids, material damage was done to the building of a Railway station and one railwayman was killed. The morale of the railwaymen continued to be excellent.

With the concurrence of the General Staff, India, and the Defence Department, lighting restrictions at a number of stations were relaxed under certain conditions stipulated by the Army. This was done to facilitate quick handling of goods wagons in Railway yards and of parcel and ticket checking on station platforms.

Revision of policy.—At the beginning of winter 1944 on a further appreciation of the war situation given by the General Staff, the Defence Department decided to confine full Air Raid Precaution measures to certain

portions of the Assam and East Bengal, certain areas along the Eastern Coast of India and a few other specially important areas. In other parts of India most of the Air Raid Precaution measures were withdrawn.

Disposal of surplus Air Raid Precaution stores.—A large quantity of Air Raid Precaution stores was rendered surplus as a result of the revised policy and Railway Administrations were given detailed instructions for its disposal—the surplus stores in most of the cases being used by Railways against their normal requirements for these stores. The Bombay, Baroda and Central India Railway, for example, took advantage of the large amount of surplus medical stores with them to create twenty-five dumps of medical relief equipment at certain important stations on their system.

14. Creation of additional posts.

14.1. Reorganisation of Establishment Directorate.—Owing to expansion of work in the Establishment Branch, an additional temporary post of Director was created in January 1945.

14.2. Reorganisation of Mechanical and Stores Directorates.—As it had become obvious that relief must be afforded to the Director of Mechanical Engineering and some special provision made to handle the greatly increased work in connection with supplies and policy in respect of Stores and Coal, it was decided in April 1944 to create an additional post of Director to deal with this work. On the appointment of the new Director of Stores the two posts of Deputy Directors of Stores in the Board's Office as well as that of the Chief Inspector of Railway Stores were transferred to his control.

By September 1944 the coal supply situation had so developed and the work in connection therewith so increased that it became imperative to sanction a third Deputy Director of Stores to handle the detailed work of this subject.

14.3. Reorganisation of the Traffic Directorate.—It became apparent in the course of the year that, owing to large developments in traffic, and the emergency of new problems, the volume of work to be handled in the Traffic Directorate was rapidly increasing beyond the capacity of the existing personnel. A re-organisation was therefore effected by splitting the existing Directorate into three separate and distinct, though interdependent, Directorates, *viz.*, one for Transportation, the other for General and Commercial and the third for Rail and Road Co-ordination, all responsible to, and working under the direction of the Member, Transportation. The Transportation Directorate was composed of a Director, two Deputy Directors and an Assistant Director; the General and Commercial Directorate, of a Director and three Deputy Directors; and the Rail and Road Co-ordination Directorate, of a Director and two Deputy Directors. The first two Directorates were established in July 1944 and the third in November 1944.

15. Post-War Planning.—During the year under review, post-war planning assumed considerable importance. The outlines of the plan mentioned last year were filled in, to some extent, during the year under review. The Railway post-war plan, as it stood at the end of the year, provided both for rehabilitation and development. Railways were unavoidably accumulating arrears in regard to renewals and maintenance of their assets as the nation's resources had to be concentrated towards the one end of winning the war. The Railway post-war plan had, therefore, to provide large amounts for rehabilitation. Development projects have also received due attention. Railways plan to keep abreast of the times and provide for development in consonance with the general development of the country, and to utilise the opportunity afforded by a programme of large scale renewals

to give effect to improvements. Some of the important development features incorporated in the railway plan were :—

(i) *Reduction in the number of classes in the post-war passenger trains.*—It has been decided to plan for the provision of only three classes on Indian railways in the post-war period. These classes would correspond approximately to the present Second, Inter and Third classes. Railways would, however, provide in addition to these three classes air-conditioned coaches on important mail and trans-provincial trains.

(ii) *Amenities for passengers.*—The post-war plan provides for a considerable increase in the amenities available to the Third class passengers. The Third class carriage receives the greatest attention as it has been recognised that the post-war carriage must provide considerably improved accommodation.

(iii) *Quarters for railway staff.*—It is recognised that a large number of staff quarters, specially for staff in receipt of salaries below Rs. 100 per mensem, would have to be constructed in the post-war period. It was decided that the problem should be referred to a special *ad hoc* Committee which should be directed to consult the staff and their wives as far as possible to determine the room arrangement and improvements which would be most appreciated.

(iv) *Electrification of railways.*—The advantages of electrification are now well known. Apart from the direct advantages, railways must consider the electrification in the light of its relation to the conservation of coal. On the availability of coal would depend the future industrialisation of the country. During the year the railways formulated certain general policies so that schemes for electrification might be examined in detail.

(v) *Construction of new lines and replacement of lines dismantled during the war.*—It was recognised that considerable extensions would be necessary to the railway mileage in the country if all areas were to be opened up and railways were to assist actively the development of the country. It would also be necessary to restore some of the railway lines which were dismantled during the war. During the year considerable attention was paid to the consultations necessary to formulate a plan for the requirement of new lines and replacement of dismantled ones. The post-war plan, as it stood at the end of the year, included a list of about 5,000 miles of new railway lines awaiting survey.

16. Inglis-Appleton Mission and its Report.—Action on the recommendations of the Inglis-Appleton Mission (a reference to which was made in the previous year's Report), continued to be taken by Railways during the year under review, and everything possible was done to implement the recommendations and derive the maximum possible advantage from the visit of the Mission to India. Among the more important steps taken as a result of the recommendations, the following may be mentioned :—

(1) Action to speed up trains by the curtailment of time allowances for watering and engine duties, schemes to provide improvement to water columns and other watering facilities, laying down of yard sticks for testing the efficiency of Staff through the services of the Bedaux Efficiency Organisation, opening of additional crossing stations, etc.

(2) Re-modelling of certain Locomotive Yards to improve lay-out, and re-siting of certain ash-pits and turn-tables.

(3) Ordering of additional cranes through the Secretary of State.

(4) Sunday unloading of wagons in Military Depots.

(5) Analysis of the various waters for locomotive usage undertaken by Mr. Hancock, an expert on Feed Water treatment from the London Midland and Scottish Railway assisted by Dr. Malhotra, Chemist and Metallurgist of the Bombay, Baroda and Central India Railway, and the installation of water conditioning plants on some railways.

(6) Ordering of additional break-down cranes.

(7) Obtaining of locomotives and rolling stock from abroad and from India.

(8) Adoption of a comprehensive scheme providing for installation of many additional Section Control Circuits, Deputy Control Circuits, Administrative Telephone Circuits, Phantom Telegraph Channels, and additional Telegraph Circuits.

In this connection the services of a number of Tele-Communication Engineers from the United Kingdom are being utilised in the general improvement of existing telecommunication facilities and installation of the new equipment as it is received.

(9) Re-modelling of Yards to remove bottle-necks and to provide extra accommodation.

17. Water Softening Committee.—As recommended by the Inglis-Appleton Mission a Committee consisting of Mr. J. C. Hancock of the London Midland and Scottish Railway and Dr. D. R. Malhotra of the Bombay, Baroda and Central India Railway, was appointed in January 1945 to report on the question of Water Softening on Indian Railways and consequent improved utilisation of Locomotives. The Committee had not concluded their investigation at the close of the year under review.

CHAPTER II.

FINANCIAL RESULTS.

18. Trade Review.—The year 1944-45 witnessed further improvement in India's foreign sea-borne trade in private merchandise both in respect of imports and exports including re-exports.

The total value of imports of foreign merchandise in 1944-45 amounted to Rs. 201 crores, showing an increase of Rs. 83·2 crores or 71 per cent. as compared with the preceding year. The increase was mainly noticeable under mineral oils; grain, pulse and flour; raw cotton; machinery of all kinds (including belting for machinery); chemicals, drugs and medicines; tea-chests; electrical instruments; precious stones and pearls, unset; salt; paper; unmanufactured tobacco, dates and spices, while there were decreases chiefly under raw wool; coaltar dyes; tallow, stearine and wax and liquors.

The total value of exports including re-exports also rose from Rs. 210 crores in 1943-44 to Rs. 228 crores in 1944-45, i.e., an increase of 17·7 crores or 8·4 per cent. As compared with 1943-44 there were increases mainly under jute bags and cloth; skins, raw (chiefly foreign produce); fruits and vegetables; lac; linseed; wool-carpets and rugs; coir and tea, while decreases were noticeable under cotton yarn and piecegoods; groundnuts seeds; manganese ore; grain, pulse and flour and raw jute.

A.—*Railway Convention Committee and Railway Depreciation Fund Committee, 1944.*

19. Railway Convention Committee.—This Committee was appointed by the Legislative Assembly to consider matters arising out of clause (iv) of the Convention which appears as Appendix 'A'. The Committee in their interim report recommended two enquiries in connection with the Railway Depreciation Fund; (i) an immediate one as to what additional appropriation, if any, should be made to the Depreciation Fund during the war as an emergency provision; and (ii) a comprehensive enquiry, as early as possible, into the lives of the assets, including obsolescence, and the consequent normal rate of contribution to the Depreciation Fund, and any other matters, such as the level of prices affecting the Fund. As a result of the former enquiry which was undertaken during 1943-44 the Committee decided that an additional appropriation of Rs. 2 crores a year should be made to the Depreciation Fund in that year and the next and that this additional appropriation should continue so long as the present war conditions continued, while the arrears of contribution of Rs. 6 crores for the previous three years should be spread over three years if the general budgetary position permitted. This decision was implemented in budget for the year 1944-45.

The Committee also recommended that, until the convention is revised, the present rate of contribution to the Depreciation Fund should not be reduced. In order to place railways on a sound financial footing, the Committee further recommended that in allocating the surplus on commercial lines between the railway reserve and general revenues, as provided in clause (iv) of the Convention Resolution until a new convention is adopted by the Assembly, the appropriation to the Railway reserve should be the maximum consistent with a fair allocation to general revenues as determined from year to year by the general budgetary situation arising out of the present emergency.

20. Railway Depreciation Fund Committee, 1944.—In pursuance of the recommendation of the Railway Convention Committee, *vide* Appendix A to this report, in their interim report, that a comprehensive enquiry should be made as early as possible into the lives of assets, including obsolescence and the consequent normal rate of contribution to the depreciation fund, and any other matters, such as the level of prices, effecting the fund, Government set up a Depreciation Fund Committee in October 1944.

Briefly the terms of reference required the Committee to suggest any alterations in the normal lives of assets laid down in the existing Depreciation Fund rules which they found necessary and to report on the condition of assets overdue replacement by reason of their age or their condition, and of assets likely to be due replacement before 1st April 1950.

Unexpected difficulties in the way of a thorough and satisfactory investigation, however, came subsequently to notice; the information required was not readily available and it was found that its compilation would throw on Railway Administrations work which they could not undertake during the war without detriment to their other and more important work. The Committee had, therefore, to be wound up before it could formulate any definite and final conclusions.

B.—*Financial Results of Indian Government Railways (including worked lines).*

21. Financial results of working.—The gross receipts of railways were Rs. 216·38 crores in 1944-45 against Rs. 185·43 crores in 1943-44, an increase of Rs. 30·95 crores. The increase was both under goods and coaching.

The ordinary working expenses amounted to Rs. 123·34 crores against Rs. 90·10 crores in the previous year, or Rs. 33·24 crores more. The amount set apart from revenue for depreciation was Rs. 17·01 crores against Rs. 16·87 crores in 1943-44 or Rs. 14 lakhs more. The operating ratio, that is, the ratio of working expenses (excluding suspense, but including appropriation to the depreciation reserve fund) to gross earnings was 65·14 against 57·96 in the previous year.

Miscellaneous transactions during 1944-45 resulted in a net receipt of Rs. 3·24 crores against Rs. 2·78 crores in 1943-44. Payments to worked lines as their share of earnings amounted to Rs. 1·93 crores against Rs. 1·87 crores in the previous year, or Rs. 6 lakhs more.

The net revenue was Rs. 77·34 crores against Rs. 79·37 crores in 1943-44 or Rs. 2·03 crores less.

The interest charges amounted to Rs. 27·45 crores against Rs. 28·53 crores in 1943-44. The decrease was due mainly to the rate of interest having fallen from 3·92 per cent. to 3·68 per cent.

There was a surplus of Rs. 49·89 crores in 1944-45 against Rs. 50·84 crores in 1943-44. Out of this a fixed amount of Rs. 32 crores net was paid to General Revenues. The balance of Rs. 17·89 crores was transferred to the Railway Reserve Fund.

The appropriation to the depreciation reserve fund was Rs. 17·01 crores and the amount withdrawn for renewals was Rs. 8·18 crores resulting in a net accretion of Rs. 8·83 crores to the Fund. As a result of termination of the contracts of the Bengal Nagpur, the Madras and Southern Mahratta and the South Indian Railways during the year, the balance in their renewal reserve fund for Permanent Way and Rolling Stock amounting to Rs. 1·08 crores was transferred to the Depreciation Reserve Fund. With this additional credit the balance at the credit of the depreciation reserve fund at the end of the year was Rs. 102·21 crores.

The total works expenditure during the year under review amounted to Rs. 14·32 crores, of which Rs. 6·14 crores were under capital and Rs. 8·18 crores from the depreciation reserve fund. Of the capital expenditure Rs. 6·15 crores related to open lines and *minus* Rs. 1 lakh to new constructions. The *minus* figure under " New Construction " was due mainly to credit received from the civil department for the sale value of land of Qadian Beas Section of the Batala Beas Railway, which was abandoned on the North Western Railway. These figures do not take into account Rs. 12·03 lakhs

on account of payment of share capital and debentures of the Bengal Nagpur and the South Indian and the Madras and Southern Mahratta Railways.

22. Net Traffic receipts, interest charges and surplus.—The statement below compares the surplus and the percentages of the net traffic receipts and interest charges to the capital-at-charge for the five years ending with 1944-45 :—

(In lakhs of rupees.)

Year.	Net traffic receipts.	Percentage of net traffic receipts to capital-at-charge.	Interest charges.	Percentage of interest charges to capital-at-charge.	Surplus.
1940-41	46,29	6·1	28,68	3·8	18,46
1941-42	55,62	7·4	28,44	3·8	28,08
1942-43	71,22	9·1	28,04	3·6	45,07
1943-44	76,59	9·8	28,53	3·7	50,84
1944-45	**74,10**	**9·4**	**27,45**	**3·5**	**49,89**

23. Traffic Receipts.—During the year under review, there was an increase over last year under all the heads of traffic receipts as shown below :—

(Crores of rupees.)

	1943-44.	1944-45.
Passenger earnings	61·59	**71·50**
Other Coaching earnings . . .	21·57	**32·24**
Goods earnings	98·32	**108·55**
Sundry earnings	3·99	**5·06**
Suspense	—·04	**—·97**
TOTAL .	185·43	**216·38**
Less—		
Earnings of worked lines . . .	3·89	**4·39**
Net traffic receipts of Indian Government Railways	181·54	**211·99**

The total increase including the earnings of worked lines was Rs. 30·95 crores, Rs. 9·91 crores under passenger traffic, Rs. 10·67 crores under other coaching traffic and Rs. 10·23 crores under goods traffic. The net increase in the traffic receipts of Indian Government Railways was Rs. 30·45 crores.

The increase under passenger earnings was under all classes. The figures for Class I Railways are given below :—

(In lakhs of rupees.)

	1943-44.	1944-45.
First Class	3,11	**4,33**
Second Class	5,78	**7,76**
Intermediate Class	3,98	**5,21**
Third Class	51,79	**56,23**
TOTAL .	64,66	**73,53**

The details of traffic earnings of individual railways are given in statements No. 3 and 6, pages 40-41 and 48-50 of Volume II of this Report.

24. Working Expenses.—The working expenses of each railway are detailed in statements No. 3 and 7, pages 40-41 and 52-61 of Volume II of this Report.

25. Losses and gains.—The statement below compares the net gain or loss on each railway with the previous year. For the purpose of calculating the gain or loss, the figures shown in the Companies' accounts have been recast to accord with the Government accounting procedure, *i.e.*, the working expenses include the appropriation to the depreciation reserve fund and not the actual expenditure on renewals and replacements which is taken into account in the Companies' own accounts :—

(In lakhs of rupees.)

Year.	B.&A.	B., B. & C.I.	E. I.	G.I.P.	N.W. (commercial)	N.W. (strategic).	O. & T.	B.N.	M.&S.M.	S.I.
1943-44	28	6,08	7,00	13,30	11,91	—2,10	3,05	1,30	4,14	2,87
1944-45	**5,07**	**4,87**	**10,56**	**11,67**	**11,24**	**—1,79**	**—13**	**—1,15**	**3,17**	**1,91**

NOTE.—Minus figures indicate losses.

26. Allocation of expenditure on Rolling Stock, Military sidings, etc., between Capital, Revenue and Depreciation Reserve Fund.

(i) *Rolling Stock.*—To meet the needs of Military traffic, the railways had to purchase a large number of rolling stock. With few exceptions, the rolling stock have been treated as replacements. Under the ordinary procedure their cost would be divisible between Capital and Depreciation Fund, the debit to Capital being proportionate to the additional carrying capacity of wagons and additional tractive effort of locomotives calculated by comparison with that of the old stock unit by unit. As the carrying capacity of the new wagons and the tractive effort of the new locomotives is, unit for unit, higher than that of the old stock, the application of the ordinary rules would result in a larger number of the old units being scrapped. Further even though the aggregate capacity were to remain the same, there would be a large net debit to Capital, because on the individual unit basis, the cost of increases in capacity would be charged to Capital at present day high prices, while credit for an equal capacity represented by the superfluous units would be afforded at original prices. It has, therefore, been decided as a war measure, that a charge to Capital should be made only when the total capacity of wagons or the aggregate tractive effort of locomotives is increased on a railway, after making allowance for difference in the estimated lives of the old and the new stock. In respect of the charge to the Depreciation Reserve Fund, it has been decided to limit the debits to the fund to the accumulations therein for the items treated as replaced, and to debit the difference between the original cost of these items and the amount borne by the Depreciation Fund to the Railway Reserve, and to charge the balance of the cost to working expenses.

In respect of stock treated as *additions*, debit to capital is limited in the case of wagons to 150 per cent. of the cost of corresponding types for indigenous sources and in the case of locomotives to 60 per cent. of the actual price, the balance being charged to working expenses.

(ii) *Military sidings, etc.*—To meet the needs of military traffic, the railways had to undertake large expenditure for construction of military sidings, doubling of lines, remodelling, provision of crossing stations, etc., and works ancillary thereto, at a time when such expenditure would not have been necessary purely from the railway point of view. A settlement has been reached with the War Department regarding the incidence of their cost; further as regards the expenditure debitable to Railways, it has been decided to debit a portion to Revenue.

Briefly the position is as under :—

(i) The cost of railway sidings and other works for the exclusive use of the Defence Services will be allocated in accordance

with the existing rules between the two Departments. The railway portion of the cost will, however, be debited to Revenue instead of to Capital as was done hitherto.

(ii) The cost of railway works of general traffic value undertaken at the request of the Defence Services for increasing line capacity will be borne by the War Department and the Railways will pay interest and depreciation charges thereon.

(iii) The cost of works undertaken by the railways themselves as having post-war commercial utility will be borne by the railways and 50 per cent. of the expenditure incurred after 1st April 1943, will be debited to Revenue.

In respect of items (i) and (iii) above, a sum of Rs. 4½ crores has been provided in the revised estimates for 1944-45.

27. Special Provision for arrears of maintenance.—The Public Accounts Committee reporting on the accounts for 1940-41 observed that " the compulsory savings on the maintenance of structural works and rolling stock that are now being made, owing largely to the non-availability of materials, will result in heavier maintenance expenditure in future years and if, as is quite possible, this increased expenditure corresponds in point of time with reduction in receipts, the only source from which it will be possible to finance this expenditure will be the Railway Reserve Fund ", and stressed the necessity for building up this fund. The Railway Convention Committee reiterated this view in their interim report. With reference to these observations the standard of maintenance of railway assets during the war was reviewed and Government decided that a sum of Rs. 5 crores should be set aside in the year 1944-45 to cover arrears of maintenance which had accumulated already and that Rs. 2 crores a year should be set aside in future, so long as the difficulty in maintaining railway assets up to normal standards persisted. The intention is that the amounts so provided should be earmarked in the Reserve Fund for arrears of maintenance so that when funds are needed to overtake them it should be possible to seek help from the Reserve in case the revenue position of Railways renders this course necessary.

28. Effect of war on earnings and working expenses and growth of Receipts and Expenditure.—The earnings during the year were about Rs. 32 crores more than those in the preceding year and stood at about Rs. 217⅓ crores, the highest figure reached so far. Taking suspense into account the figure stood at Rs. 216⅓ crores. Of this, an increase of about 20 crores under Coaching earnings was from military special trains for personnel and stores, civilian passengers and public parcels, the latter due to the diversion of traffic which, due to its low priority, could not move as ' goods ', and the balance was from increase in military goods traffic and a shift in the pattern of public goods traffic from lower to higher rated commodities.

Working expenses for the year increased by about Rs. 34 crores and stood at Rs. 124½ crores, also a record figure. Taking suspense into account the figure stood at Rs. 123⅓ crores. The main cause of the increase was the changes in the rules of allocation of expenditure on works and rolling stock (more fully described elsewhere in the report) made in order to mitigate the effect of war-time inflated prices on the Capital structure and on the Depreciation Fund, the effect of which was to transfer to Revenue Working Expenses during the year expenditure to the extent of about Rs. 19 crores on structural works and rolling stock, which would otherwise have been met from Capital and the Depreciation Fund. Other important factors in the increase were the appointment of additional staff to move the increased traffic load, increases in the rate and scope of dearness allowance and other compensatory allowances and the higher expenditure on coal and other fuel due to increase both in the quantity consumed and in the prices paid.

29. Analysis of Financial Results of Working.—An analysis of the Financial Results of the working of the Indian Government Railways is given in the following statement for 1943-44 and 1944-45 :—

(Figures in thousands of rupees.)

Railways.	Capital at charge.	Deduct amount of capital contributed by Companies and Indian States.	Net Government Capital at charge.	Receipts	Working Expenses including Depreciation.	Payments to worked lines.	Net Receipts.	Percentage of net Receipts on capital at charge.	Charge against net Revenue Receipts.		Gain.	Loss.
									Payments on account of share of surplus profits.	Interest charges.		
Indian Government Railways												
B. & A.—												
1943-44	80,84,52	3,00	80,81,52	18,17,25	14,86.03	16,67	3,14,55	3·9	66	2,85,58	28,31	..
1944-45	83,21,92	3,00	83,18,92	28,38,94	20,25,99	19,77	7,93,18	9·5	..	2,86,08	5,07,10	..
B. N.—												
1943-44	80,01,51	3,90,55	76,10,96	16,92,23	12,39,51	1,46	4,51,26	5·6	20,74	3,00,80	1,29,72	..
1944-45	81,58,73	7	81,58,66	18,37,83	16,26,77	1,67	2,09,39	2·6	30,62	2,93,67	..	1,14,90
B., B. & C. I.—												
1943-44	75,02,75	1,27,97	73,74,78	19,29,58	10,07,23	39,14	8,83,21	11·8	(a)11,01	2,63,89	6,08,31	..
1944-45	75,80,48	1,27,97	74,52,51	20.68,05	12,91,42	35,61	7,41,02	9·8	..	2,53,78	4,87,24	..
E. I.—												
1943-44	1,51,33,08	..	1,51,33,08	33,16,02	20,22,66	..	12,93,36	8·6	..	5,93,76	6,99,60	..
1944-45	1,52,02,10	..	1,52,02,10	41,41,95	25,34,98	..	16,06,97	10·6	..	5,50,89	10,56,08	..
G. I. P.—												
1943-44	1,13,86,35	..	1,13,86,35	33,40,04	15,73,12	43,39	17,23,53	15·1	..	3,93,10	13,30,43	..
1944-45	1,13,24,70	..	1,13,24,70	35,81,56	19,94,20	43,58	15,43,78	13·6	..	3,76,83	11,66,95	..
M. & S. M.—												
1943-44	53,86,32	6,59,33	47,26,99	13,97,38	7,32,33	19,72	6,45,33	12·0	21,31	2,09,86	4,14,16	..
1944-45	53,34,54	..	53,34,54	16,23,30	10,63,97	21,28	5,38,05	10·1	24,23	1,97,11	3,16,71	..
N. W.—												
1943-44	1,46,93,99	..	1,46,93,99	32,84,53	17,29,95	43,91	15,10,67	10·3	..	5,29,60	9,81,07	..
1944-45	1,47,37,92	..	1,47,37,92	35,51,92	20,34,13	56,93	14,60,86	9·9	..	5,16,11	9.44,75	..
O. & T.—												
1943-44	29,25,95	..	29,25,95	6,29,88	3,12,72	..	3,17,16	10·8	..	1,12,39	2,04,77	..
1944-45	28,56,99	..	28,56,99	7,20,77	6,25,29	..	95,48	3·3	..	1,08,41	..	12,93
S. I.—												
1943-44	45,81,17	2,20,47	43,60,70	10,47,14	5,49,38	24,48	4,73,28	10·0	33,70	1,52,65	2,86,93	..
1944-45	45,77,65	80,47	44,97,18	11,82,17	7,83,31	15,67	3,83,19	8·4	44,30	1,47,47	1,91,42	..
Other Railways—												
1943-44	3,77,70	—27,42	4,05,12	88,56	43,99	..	44,57	11·8	..	11,68	32,89	..
1944-45	6,05,08	..	6,05,08	91,70	55,32	..	36,38	6·0	..	14,91	21,47	..
Interest on Depreciation and Reserve Fund Balances—												
1943-44	..	..	..	4,05,21	..	..	4,05,21	..	..	..	4,05,21	..
1944-45	..	..	..	4,65,23	..	..	4,65,23	..	..	..	4,65,23	..
Net Miscelloneous Receipts and charges not attributable to any one railway—												
1943-44	..	..	..	..	..	..	..	..	..	..	..	37,70
1944-45	..	..	..	..	..	..	..	..	..	..	..	40,65
Total Central—												
1943-44	7,80,73,34	13,73,90	7,66,99,44	1,89,47,82	1,06,96,92	1,88,77	80,62,13	10·3	87,42	28,53,31	50,83,70	..
1944-45	7,87,00,11	2,11,51	7,84,88,60	2,21,03,42	1,40,35,38	1,94,51	78,73,53	10·0	99,15	27,45,26	49,88,47	..
Provincial Railways—												
1943-44	..	..	..	..	..	..	..	..	..	..	..	..
1944-45	..	..	..	91	..	..	91	..	..	..	91	..
N. W. (Commercial)—												
1943-44	1,14,28,50	..	1,14,28,50	30,50,14	14,03,92	43,91	16,02,31	14·0	..	4,11,41	11,90,90	..
1944-45	1,14,83,46	..	1,14,83,46	33,26,21	17,41,76	56,93	15,27,52	13·3	..	4,03,20	11,24,32	..
N. W.— Non-Commercial (Strategic).												
1943-44	32,65,49	..	32,65,49	2,34,39	3,26,03	..	—91,64	—2·8	..	1,18,19	..	2,09,83
1944-45	32,54,46	..	32,54,46	2,25,71	2,92,37	..	—66,66	—2·0	..	1,12,91	..	1,79,57

	1943-44.
(a) Includes payment to Jaipur-Durbar . .	9,55

C.—*General results of working of all Indian Railways.*

30. Analysis of Earnings.—The total earnings of all Railways including those in which the Government of India have no financial interest, amounted to Rs. 232·62 crores of which Rs. 114·46 crores or 49·2 per cent. were from goods traffic, Rs. 76·45 crores or 32·9 per cent. from passenger traffic and Rs. 41·71 crores or 17·9 per cent. from parcels, luggage and other miscellaneous sources of revenue.

30.1. Passenger Earnings.—In comparison with 1943-44, passenger earnings on all Indian Railways increased by Rs. 9·28 crores to Rs. 76·45 crores, an increase of 13·8 per cent., the number of passengers carried increased by about 137 millions—an increase of about 17·3 per cent. and passenger miles by 5,085 millions, an increase of about 15·6 per cent. Some of the striking variations in passenger traffic on individual railways are indicated below :—

(Figures in lakhs.)

Railways.	Variations as compared with 1943-44. Passengers Carried.	Earnings.
	No.	Rs.
Bombay, Baroda and Central India	+228	+104
East Indian	+208	+428
Bengal Nagpur	+ 66	+108

Detailed figures of the number of passengers carried, passenger miles and earnings therefrom are given in Summary X, Statements Nos. 12 and 36, pages 12-13, 92-99 and 227-233 respectively of Volume II of this Report.

30.2. Goods Earnings.—The earnings from goods traffic on all railways increased by Rs. 11·23 crores or 10·9 per cent. as compared with 1943-44. The tonnage of goods carried increased by 50 lakhs of tons or about 5·21 per cent. and each ton was carried an average of approximately 279 miles instead of 294 miles (revised) last year with the result that the net ton miles registered an increase of 31 millions or 0·11 per cent. over last year.

The increased earnings were mainly derived from military traffic; iron and steel, wrought; gur, jagree and molasses; oil seeds; rice not in the husk; coal, coke and patent fuel for the public; vegetable oil; jute, raw; kerosine oil in tins and other commodities, while decreases were substantial in metallic ore; wheat; cotton, manufactured; salt; cement; petrol in bulk; coal, coke and patent fuel for foreign railways and home line constructions and jowar and bajra.

The heaviest increase in goods traffic was registered on Bengal and Assam Railway where the tonnage carried on the system increased by 4·62 millions, an increase of 45·4 per cent., ton miles by 781·7 millions (56 per cent.) and earnings from goods carried by Rs. 6·52 crores or 88·2 per cent.

Detailed goods statistics will be found in Summary X, Statements Nos. 13, 29 and 36, pages 12-13, 100-111, 161-176 and 227-233 respectively of Volume II of this Report.

CHAPTER III

NEW CONSTRUCTION AND ENGINEERING WORKS.

31. Capital Expenditure.—At the end of March 1945, the total capital-at-charge on all railways, including those under construction, amounted to Rs. 864·19 crores, of which Rs. 787·00 crores was capital-at-charge on Indian Government railways inclusive of premia paid in the purchase of Companies' lines. The remainder Rs. 77·19* crores, represented capital raised by Indian States, Companies and District Boards.

The capital-at-charge of Indian Government railways is composed as follows:—

	£
Liability and debt incurred in purchase of railways .	150,106,630
Less liability and debt cancelled by the operation of Annuities and Sinking Fund	-29,284,941
Net amount outstanding	120,821,689†

	(In thousands of rupees.)
Direct expenditure by Government	6,25,90,11
The above sterling figure converted into rupees . .	1,61,10,00†
Grand Total .	7,87,00,11

By far the greater portion of this amount, namely, Rs. 784,88,60,000 is Government capital and only Rs. 2,11,51,000 is owned by Companies, etc. These figures include Rs. 32,54,46,000 on account of capital expenditure to the end of March 1945, on strategic lines.

The total capital outlay on all railways during 1944-45 was Rs. 6·48 crores, of which Rs. 6·14 crores related to Indian Government railways.

The distribution of the capital outlay in 1944-45 over the different Indian Government Railways is shown in the summary below:—

(Figures in lakhs.)

Railways.	Open Lines.			New Lines.	GRAND TOTAL.
	Works, etc.	Rolling stock.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal Nagpur	69	—9	60	..	60
Bombay, Baroda & Central India	87	23	1,10	..	1,10
Bengal and Assam . . .	3,04	—61	2,43	..	2,43
East Indian	2,39	—13	2,26	..	2,26
Great Indian Peninsula . .	—13	—4	—17	..	—17
Madras & Southern Mahratta .	16	—8	8	..	8
North Western . . .	32	10	42	—1	41
South Indian	25	—26	—1	..	—1
Oudh and Tirhut . . .	—45	—43	—88	..	—88
Other Indian Railways . .	32	..	32	..	32
TOTAL.	7,46	—1,31	6,15	—1	6,14

* Includes Rs. 8,87,000 representing outlay on the Alnavar-Dandeli Railway.

† £2,575,000, £2,000,000, £1,500,000 and £1,000,000 representing share capital of the Great Indian Peninsula, Bombay, Baroda and Central India, the Madras and Southern Mahratta and the South Indian Railways respectively (the first two sums paid off during the years 1925-26 and 1941-42 respectively and the last two during the year 1944-45) have been converted at the appropriate average rate of exchange for those years and the balance of £113,746,689 at the rate of 1*s*. 6*d*. to the rupee.

32. Mileage of Lines opened or sanctioned in 1944-45.—No new lines were sanctioned for construction during the year.

8·87 miles of railways were opened to public traffic during the year, as under :—

Name of line	Gauge	Mileage	Owner	Working Agency	Date of opening
Waltair, avoiding line . .	5′ 6″	1·86	State line	**B.N.**	**30-3-45**
Tikiapara Lillooah avoiding line .	5′ 6″	1·61	Do.	**E.I.**	**11-3-45**
Kala-Dina loop (Hastadpur Hannapur Section.)	5′ 6″	5·40	Do.	**N.W.**	**11-5-44**
TOTAL . .		8·87			

33. Surveys and Lines under construction during 1944-45.—No new surveys and no new constructions were undertaken during the year. The construction of the two sections Mudkhed-Adilabad (to be constructed by His Exalted Highness the Nizam's State Railway) and Fatehpur-Bissau (to be constructed by the Jaipur State Railway) which was reported in previous years to have been suspended, remained suspended.

34. Lines closed during 1944-45.—During the year under review the third rail 9·37 miles (broad gauge) between Khanai and Bostan of North Western Railway was dismantled to meet further demand of track for Military works and the section was closed to broad gauge traffic.

As the Kakilamukh Ghat on the Jorhat Provincial Railway was silting, the narrow gauge line from Gosaigaon to this Ghat, a distance of about five miles, was dismantled during the year under review.

Concurrence of the Assam Government was obtained before dismantling the line.

35. Engineering Works.—The following is a list of some of the important works carried out or sanctioned during the year with a view to augmenting the line capacity, improving operational facilities, providing additional housing accommodation for staff, strengthening bridges, etc. :—

35.1. Open Line Improvements.

Bengal and Assam Railway.

	Amount in Rs.
Construction of a new goods yard, including acquisition of land, at Kalighat	5,19,632
Provision of Regulating Yard at Dum Dum Junction .	6,77,000
Provision of rail facilities to serve American Ammunition and Explosive Depot at Kanchrapara . .	6,26,273
Provision of additional traffic facilities at Dhubri Ghat	15,34,444
Provision of additional traffic facilities on the Parbatipur-Golakganj Section	12,62,228
Provision of extra traffic facilities at Chandmari . .	2,25,569
Development of the Chittagong-Akhaura Section .	4,08,650

Bengal Nagpur Railway.

Repairs to cyclone damages during October 1942 .	6,35,750
Repairs to cyclone damages during November 1942 .	2,60,850
Construction of a crossing station between Kandra and Gomharria	1,28,829
Provision of an Avoiding Line between the Bengal Nagpur and Madras and Southern Mahratta Railways at Waltair	10,14,576

	Amount in Rs.
Bengal Nagpur Railway—contd.	
Direct line from Tikiapara, Bengal Nagpur-East Indian Railway transfer sidings and H.B. Chord at Lillooah, avoiding Howrah Loco. Yard and Lillooah Sorting Yard	4,92,392
Doubling of line from Dalbhumgarh to Chakulia	30,00,000
Doubling of line from Khargpur to Kalaikunda	2,50,000
East Indian Railway.	
Line capacity works required in connection with the development of State Railway Collieries in Bokaro-Kargali area	35,45,000
Additional facilities in connection with the shed shopping of engines at Moghalsarai Running Shed	8,60,928
Loco. Yard Remodelling at Bandel Junction	4,60,000
Loco. Yard Remodelling at Burdwan Junction	4,59,000
Conversion of Prithiganj flag station into a crossing station	1,11,939
Additions and alterations to yard at Barakakana	3,76,568
Railhead facilities at Bonpasganj Block Hut	1,91,535
Remodelling of Asansol Down Goods and Passenger Yard	26,81,000
Provision of rail services to E.S.D., Roorkee	2,56,699
Doubling the railway line between Hardoi and Kahilia and additions and alterations to Yards	34,74,203
Doubling of Malihabad-Balamau, Balamau-Hardoi, Tilhar-Bilpur and Bilpur-Bareilly Sections on the Moradabad Division	1,17,53,584
Great Indian Peninsula Railway.	
Provision of a Central Marshalling Yard at Dehu Road	7,59,947
Provision of rail facilities to serve the Ordinance Depot at Pulgaon	24,74,679
Madras and Southern Mahratta Railway.	
Provision of 5 additional crossing stations between Arkonam and Jalarpet on the South West Line	3,76,000
Providing rail facilities required in connection with the expansion of No.4, Reserve Base, Avadi	44,70,000
Factory siding for Hindustan Aircraft Limited, Bangalore	4,64,696
Provision of rail facilities to Advance Stores Depôt at Krishnarajapuram (Bangalore)	2,61,050
Provision of rail facilities to Supply Depôt at White-field (Bangalore)	3,53,698
Provision of rail facilities in connection with No. 4, Reserve Base (Madras and Southern Mahratta Railway)	83,50,000
Loco. facilities at Tondiarpet Marshalling Yard	1,91,061
Conversion of certain non-crossing stations into crossing stations on the North East Line	3,30,153
North Western Railway.	
Reopening Dhandari-Kalan as a four-line Station	1,96,000
South Indian Railway.	
Provision of 3 crossing stations between Podanur and Olavakot Junction	1,74,806
Conversion of Thonganur into a crossing station, Jalarpet-Erode Section	1,20,507

35.2. Important works sanctioned.

	Amount in Rs.
Bengal and Assam Railway.	
Constructing Guide Bund in the river Kunker for the protection of the Railway bank at mile 305·6 near Jhaua	2,21,419
750 K.W. Bulk Electric Supply from Naihati to Kanchrapara	1,29,381
Construction of temporary quarters in connection with 1943 traffic, at Chitpur and Calcutta area .	3,46,346
Provision of additional accommodation for grain shop and quarters for grain shop staff at Lalmanirhat .	64,158
Chandpur Foreshore Revetment	6,12,000
Protection of banks of River Gorai at Kushtia Station	1,62,141
Protection works at Kaljani River at Alipur Duar .	1,40,682
Bengal Nagpur Railway.	
Protection works between Kallikota and Rambha Stations (2nd stage) on the East Coast Section . .	1,84,308
Khargpur Water Supply augmentation Scheme . .	4,75,497
Loco. Watering arrangement at Palasa . . .	2,77,081
East Indian Railway.	
Improvement to Loco. Water Supply arrangements at Chheoki	1,22,566
Provision of shed shopping facilities at Tundla Station	1,65,655
Madras and Southern Mahratta Railway.	
Provision of a branch line from Bangalore to Jalahalli	19,40,000
North Western Railway.	
Providing a Ring Bund around the Railway Colony at Samasata	1,20,205
Constructing a spur bund to protect Samasata Yard against river erosion	1,92,412
Double storied block of 2 units nurses' quarters at Delhi Main	20,175
Oudh and Tirhut Railway.	
Acquisition of 132·96 acres of land for permanent diversion round breaches between Narainpur and Pasraha	1,23,916
South Indian Railway.	
Staff quarters for the Medical Department . . .	33,965

35.3. Bridge strengthening and protection programme.

Bengal and Assam Railway.	
Extension of longitudinal extension of the left Guide Bank of the Hardinge Bridge from chain 80 to chain 90	7,21,000
Rebuilding of Muhuri Bridge at mile 47/17—20 between Muhurganj and Fazilpur	4,67,000
East Indian Railway.	
Providing a permanent bridge at mile 57 (main line) in Saktigarh area	4,49,316
South Indian Railway.	
Rebuilding of Bridge No. 44 at mile B.147/1—2 between Kagankarai and Samalpatti on the main line, broad gauge	1,02,646

36. Wireless Communications on Railways.

General.—Considerable progress was made during the year in the provision of wireless networks on Railways as supplements to line communications particularly for use during emergencies. The Officer on Special Duty (Wireless) toured all railways and advised them of the general lines on which action should be taken to instal the equipment already supplied to them and to train operating and cipher staff and maintenance personnel.

The development of wireless communication on almost all railways is progressing satisfactorily and most of the major railways are now effectively spanned by efficient wireless networks interconnecting all important junctions and transhipment termini with the District and Railway Headquarters. Many Railway Administrations have reported that the wireless system even with newly trained personnel and hastily installed apparatus has turned out to be a reliable and efficient means of communication and is rapidly establishing itself as an important part of the Railway organisation as was evinced during the breaches to the Great Indian Peninsula and Bombay, Baroda and Central India lines during the year.

Towards the end of the year, Railways have been transmitting well over 50,000 messages per month over their wireless networks. This figure is rapidly rising.

Equipment.—Pending the delivery of the medium and high powered wireless sets, Railways have set up their low powered sets to establish the networks of communications. The General Headquarters have very kindly lent, free of cost, 12 medium powered sets so that Railways may have some experience in the working of this kind of equipment before their own are delivered to them.

Three Headquarters Sets were received. Two of these have already been installed at Bombay and Calcutta and the third is under installation at Delhi. Already the Headquarters Links Bombay-Calcutta-Madras are in operation. A considerable quantity of testing equipment was also received through the General Headquarters which has been of great assistance to Railways particularly in the areas affected by heavy military traffic.

Personnel.—Railways have themselves trained all their operating and cipher staff and maintenance personnel.

Current development.—Experiments are being carried out on the Oudh and Tirhut and Bombay, Baroda and Central India Railways to instal wireless sets on trains so that an effective attempt may be made to maintain contact with the running trains and avert train disasters.

With the improvement of the war situation the General Headquarters sanctioned certain relaxations in the cipher restrictions on railway wireless networks which have been of considerable help to railways. The use of radio telephony has also been permitted and experiments are being made to make the best use of this valuable side of wireless communications.

Co-ordination of Line and Wireless.—It was felt that the developments envisaged by Railways in regard to Wireless required a thorough examination before final commitments were entered into which would carry the projects well into the post-war period. Such an examination had to take into account the improvements and additions to Railway Line Telecommunications and other Wireless Schemes planned by the Provinces and the Centre. The examination was arranged to be carried out by two experts in consultation with individual Railways. The reports of these experts were scrutinised further and the final wireless and line layouts for all Railways have been accepted in principle by the Board. On this bases Railways are building up their wireless and line layouts as permanent additional facilities to railway operation.

37. Improvements to Line Telecommunications on Railways.

General.—Railways were requested in March, 1944, to outline their requirements in regard to long distance telephony between important traffic centres, additional train control circuits (including Deputy Controllers circuits) and telegraphs. These requirements were examined in the Posts and Telegraphs Directorate, Construction Branch, by representatives of the Posts and Telegraphs Department and the Railway Board and were later discussed in detail with representatives of Railway Administrations who visited New Delhi during April, 1944.

Comprehensive schemes were thereafter formulated covering (i) an Administrative Trunk Telephone Network to link Railways' Headquarters Offices with Divisional/District Headquarters, (ii) Additional Train Controls, and (iii) Additional Telegraph Outlets, including teleprinters.

The Railway Telecommunications Improvement Scheme will, it is anticipated, involve the construction of approximately 37,000 miles of line wire at an estimated cost of Rs. 1·5 crores, while expenditure by Railways on new control offices, quarters, equipment, etc., is estimated at Rs. 0·5 crore.

A considerable proportion of the Railway Telecommnuication Improvement Network is inter-dependent upon the general progress of the Posts and Telegraphs Department's main Telecommunications Development Scheme. In these circumstances, new pairs of lines for Railway circuits are either to be provided on the main Telecommunication Development Scheme alignments or existing Posts and Telegraphs Department's circuits now erected on alignments alongside Railways will have to be moved to the new Telecommunications Development Scheme alignments and the existing physical pairs of wires thus released will become available for Railway circuits.

In January/February 1945 a review of the Railways' Wireless and Line Telecommunication projects was made with a view to co-ordinating these resources.

Progress of Line Construction.—Considering all the factors such as the major effort of the Posts and Telegraph Department being concentrated on their own Main Telecommunications Development Scheme, the difficulties in regard to transportation of equipment and material and more particularly the position *vis-à-vis* supply requirements to meet military demands the construction position at the end of the year under review is reasonably good. Many circuits have already been handed over to Railways. It is hoped that many more will be completed shortly and handed over to Railways in the near future.

Equipment Position.—All the necessary equipment has been ordered during the year and some items have already arrived in the country and are under issue to the various Railways. It is expected that most of the outstanding items will be delivered in the course of the next year.

Current Development.—Major H. L. Carter, Planning Officer (Telecommunication) Railway Board, has submitted a comprehensive technical paper entitled "Control of Railway Traffic Operation by Telephone and Teleprinter" which is under print. It is felt that this paper would be helpful to officers on Railways who are designing control offices, etc., and would influence to a considerable extent capital outlay in the construction of quarters and equipment.

The Administrative Trunk Telephone Network is under revision.

A comprehensive Railway Teleprinter Network is also under preparation.

CHAPTER IV

TRANSPORTATION.

A.—*Operating*.

38. Volume of traffic handled.—The unprecedented increase in military traffic specially during the latter part of the year, continued shortage of sea transport, the increase in production of war materials and greater industrial activity brought about heavy demands on rail transport well above the level of previous year. The volume of traffic handled, both passenger and goods, during the year 1944-45 was greater than in 1943-44 and very much in excess of the pre-war figures. On Class I Railways the increase in passenger miles—the best unit for measuring the passenger traffic handled—was 15·7 per cent. and that in ton miles—the best unit for measuring the freight traffic handled—was 0·02 per cent. as compared with the preceding year. It should be mentioned that these increases do not include the large volume of traffic moved by military special trains. The following statement shows the amount of traffic handled and the increases recorded over the preceding year and over the pre-war year (1938-39).

(Figures in thousands.)

Particulars.	Class I Railways.				
	1938-39* (Pre-war).	1943-44.	**1944-45.**	**Percentage increase (+) or decrease (—) as compared with** 1938-39.	**1943-44.**
Passenger miles	18,072,018	31,434,458	**36,365,575**	+101·2	**+15·7**
Net ton miles†	21,462,533	27,735,841	**27,741,154**	+29·3	**+0·02**

* Includes Bikaner State Railway for comparative purposes.
† Excludes departmental.

39. Train miles.—The number of train miles run to carry the traffic referred to above was as follows :—

(Figures in thousands.)

Particulars.	1938-39* (Pre-war)	1943-44.	**1944-45.**	Percentage variation with 1938-39.	**1943-44.**
Passenger (including proportion of mixed) train miles.†	111,503	80,167	**84,274**	—24·4	**+5·12**
Goods (including proportion of mixed) train miles.‡	69,172	74,320	**76,089**	+10·0	**+2·38**

* Includes Bikaner State Railway for comparative purposes.

† *Important.*—This includes the mileage of trains conveying passengers and of all other traffic booked at coaching rates, and empty mileage run by passenger and other coaching stock. It also includes mileage of electric locomotive and electric multiple unit trains as well as military specials but excludes departmental.

‡ Includes mileage of electric locomotive trains but excludes departmental.

There was only a very slight increase in passenger train services as compared with the previous year. Railways handled 15·7 per cent. more passenger miles than in 1943-44 by running heavier and fuller trains. The various steps taken to minimise the effect of reduced passenger train services are detailed in Chapter VIII, paragraph 101.

The slight increase in " Net Ton Miles " (+0·02 per cent.) involved an increase of 2·38 per cent. in goods train mileage which was mainly due to a decrease in the average load per wagon chiefly caused by a change in the pattern of traffic. Another contributory factor was unbalanced traffic particularly on the metre gauge.

Detailed figures of train miles of Class I Railways are given in Statements 17 and 32, pages 120-121, and 219-222, and those of Class II and III Railways in Statement No. 37, pages 234-238 of Volume II of this Report.

In the paragraphs below the results of passenger and goods train services on Class I Railways are reviewed by gauges :—

40. Passenger trains.

(Figures in thousands.)

Particulars.	Class I Railways.					
	Broad Gauge.			Metre Gauge.		
	1943-44.	**1944-45.**	**Percentage variation with 1943-44.**	1943-44.	**1944-45.**	**Percentage variation with 1943-44.**
Passenger miles	22,658,887	**26,377,162**	**+16·4**	8,447,579	**9,604,330**	+13·7
Coaching vehicle miles (including proportion of mixed).	937,430	**994,612**	**+6·10**	395,546	**418,560**	**+5·82**
Passenger train miles* (including proportion of mixed).	56,137	**59,793**	**+6·51**	22,106	**22,529**	**+1·91**

* *Important.*—This includes the mileage of trains conveying passengers and of all other traffic booked at coaching rates, and empty mileage run by passenger and other coaching stock. It also includes mileage of electric locomotives and electric multiple unit suburban trains, as well as military specials but excludes departmental.

On the broad gauge railways despite a 16·4 per cent. increase in passenger miles, coaching vehicle miles increased only by 6·10 per cent. and passenger train miles by 6·51 per cent. Similarly on the metre gauge railways passenger miles increased by 13·7 per cent., whilst coaching vehicle miles increased only by 5·82 per cent. and passenger train miles by 1·91 per cent. In spite of the propaganda to discourage travel heavy overcrowding continued almost unabated.

During the year there was no further reduction in passenger train services which had already been curtailed in order to conserve line capacity required for the movement of essential traffic, both military and civil. On the other hand, with the running of some duplicate passenger trains towards the latter part of the year solely for the journeys of military personnel on leave, etc., there was a very slight improvement in passenger train services which stood at 64·1 per cent. of the pre-war figure during the period under review against 63 per cent. in 1943-44.

40.1. Punctuality of Passenger trains.—The following table shows the percentage of passenger trains not losing time to the total number of trains run on all Class I Railways during 1944-45 as compared with 1943-44 :—

	All trains (including electric multiple unit trains).	Mail and important through trains.	Mixed trains.	Suburban trains.	Other passenger trains.
Broad Gauge.					
1943-44	65·0	52·2	63·3	63·8 79·1*	53·9
1944-45	**69·3**	**59·7**	**68·7**	**73·2 77·3***	**61·8**
Metre Gauge.					
1943-44	72·3	46·1	72·7	89·7 88·4†	69·8
1944-45	**74·1**	**48·8**	**73·9**	**91·3 91·9†**	**70·3**

* Bombay, Baroda and Central India and Great Indian Peninsula Railways' electric multiple unit trains.

† South Indian Railway's electric multiple unit trains.

There was a perceptible improvement on both the broad and metre gauges under all headings excepting a slight deterioration in the case of electric multiple unit suburban trains on the Bombay, Baroda and Central India and Great Indian Peninsula Railways. This is certainly a creditable achievement in the face of adverse factors such as difficulty in accommodating passengers whose number showed a phenomenal increase, heavy parcels traffic and the interference of special trains with regular service.

41. Goods trains.

(Figures in thousands.)

Particulars.		Class I Railways.				
		1938-39*. (Pre-war)	1943-44.	1944-45.	Percentage variation with 1938-39.	Percentage variation with 1943-44.
Goods (including proportion of mixed) ton miles.	B.G.	18,283,959	23,820,158	23,209,859	+26·9	—2·56
	M.G.	3,092,002	3,810,661	4,423,502	+43·1	+16·1
Wagon miles (including proportion of mixed).	B.G.	2,117,936	2,168,815	2,155,858	+1·79	—0·60
	M.G.	663,822	717,787	901,063	+35·7	+25·5
Goods train miles (including proportion of mixed.)	B.G.	48,018	50,944	50,417	+5·00	—1·03
	M.G.	19,400	21,591	23,853	+23·0	+10·5

* Includes Bikaner State Railway for comparative purposes.
† Excludes departmental.

On the broad gauge railways goods ton miles decreased by 2·56 per cent. when compared with the previous year but the wagon miles dropped by 0·60 per cent. and the goods train miles by 1·03 per cent. On the metre gauge railways the goods ton miles increased by 16·1 per cent. in comparison with the previous year while the wagon miles increased by 25·5 per cent. and train miles by 10·5 per cent.

41.1. Goods train speeds.—The average speed of goods trains (steam) which was 10·1 miles per hour on the broad gauge and 10·3 miles on the metre gauge in 1943-44 showed a slight drop this year, *i.e.*, 10·0 miles on the broad gauge and 10·2 miles on the metre gauge. Considering that there was a heavier strain thrown on line capacity on some of the more important through routes this year and that precedence had to be given to a larger number of military special trains over ordinary goods trains, the result cannot be considered as disappointing.

41.2. Goods train loads.—On the broad gauge railways the average net or freight load per goods train (steam) decreased from 467 tons in 1943-44 to 460 tons in 1944-45, while on the metre gauge railways there was an increase from 176 tons in 1943-44 to 185 tons in 1944-45. The following railways achieved marked improvements in the average net load per train, as indicated below :—

(Average net or freight weight per train.)

—	Broad Gauge.			Metre Gauge.		
	Bengal and Assam.	Bombay, Baroda & Central India.	South Indian.	Bengal and Assam.	Jodhpur.	Nizam's State.
1943-44.	326	390	276	156	216	229
1944-45.	363	414	288	186	234	242

42. Stock usage.—With the purchase of new engines there was a slight increase in the average number of engines in use daily both on the

broad and metre gauges, but very few of these engines could be utilised for passenger train services which yield the highest usage figures. As more engines had to be used for goods shunting and siding services specially on the metre gauge which react adversely on the performance figures of engines, there was hardly any perceptible improvement in the average daily mileage run per engine. All the railways, however, made special efforts to improve the usage of wagons and locomotives. In the following sub-paragraphs the stock usage results of Class I Railways during the year are briefly reviewed.

42.1. Engine usage.—Measured in terms of engine miles per day per engine on line (*i.e.*, inclusive of time occupied under repairs, etc.), the daily mileage remained steady at 77 on the broad gauge and dropped from 72 to 69 on the metre gauge when compared with the preceding year. The percentage of engines under or awaiting repairs in Mechanical and Transportation Workshops showed an improvement on the broad gauge from 16·2 per cent. in 1943-44 to 16·1 per cent. in 1944-45, but there was a slight deterioration on the metre gauge from 13·4 per cent. to 13·9 per cent.

The net ton miles per goods locomotive day dropped both for the locomotives on line and the locomotives in effective use on the broad gauge while on the metre gauge a slight improvement was noticeable in respect of locomotives in effective use.

	BROAD GAUGE.		METRE GAUGE.	
	Net ton miles per goods locomotive day on line.	Net ton miles per goods locomotive daily in use.	Net ton miles per goods locomotive day on line.	Net ton miles per goods locomotive daily in use.
1943-44.	17,397	26,208	7,374	11,652
1944-45.	**16,523**	**24,938**	**7,307**	**11,704**

Details of engine usage are given in Statement No. 22, pages 136 to 139 of Volume II of this Report.

42.2. Wagon usage.—The statistical unit of wagon movement, *viz.*, 'wagon miles per wagon day' denoting the average number of miles run per wagon daily both loaded and empty journeys—showed an increase from 39·7 miles in 1943-44 to 40·0 miles in 1944-45 for all the broad gauge railways combined and from 36·7 to 39·3 for the metre gauge Class I Railways.

The more comprehensive unit for the purpose of gauging the work performed by a wagon is 'net ton miles per wagon day', which shows the number of miles run by a wagon as well as the load carried by it. As a result of a drop in the average load of wagons and unbalanced traffic this figure shows a small decrease as noted below:—

	Broad Gauge.		Metre Gauge.	
	1943-44.	**1944-45.**	1943-44.	**1944-45.**
Net ton miles per wagon day . .	445	**438**	*201	**199**

* Revised figures.

Both these units as at present compiled, however, understate the performance of the railways inasmuch as the wagon days in these calculations refer to the total wagon stock available on the railways although quite a large number of these wagons are rendering service on military specials.

Details of vehicle and wagon miles and their usage are given in Statements No. 19 and 24, pages 130 to 133 and 142 to 143 of Volume II of this Report.

42.3. Reduction in wagons loaded with " smalls ".—Unstinted efforts were made to reduce the number of wagons carrying " smalls " traffic and as a result a considerable reduction was achieved thereby relieving more wagons for full loads as shown below :—

	No. of wagons loaded with "smalls".		Percentage reduction in comparison with	No. of wagons loaded with 'smalls' expressed as a percentage of the total number of wagons loaded.	
	1943-44.	**1944-45.**	1943-44.	1943-44.	**1944-45.**
Broad Gauge . .	*475,428	**425,738**	— 10·5	11·0	**9·46**
Metre Gauge . .	*360,496	**305,474**	— 15·3	*15·0	**11·4**

* Revised figures.

43. Wagon position in the pool.

43.1. Broad Gauge Wagon Pool.—The number of public service wagons (in terms of four-wheelers) in use at the end of the year was 157,006, *i.e.*, 4,325 more than at the end of 1943-44. The total number of wagons loaded during the year was 4,500,672 being an increase of 170,212 or 3·93 per cent. as compared with the previous year. Demands throughout the year exceeded the available wagon supply.

The number of wagons temporarily out of service on all Broad Gauge Railways varied between 5,943 and 7,447 wagons.

43.2. Metre Gauge Wagon Pool.—The number of public traffic wagons (in terms of four-wheelers) on 31st March 1945 was 65,427, *i.e.*, 17,173 more than at the end of 1943-44. The total number of wagons loaded during the year was 2,308,706 being an increase of 237,244 or 11·5 per cent. as compared with the previous year.

Demands throughout the year exceeded the available wagon supply.

44. Neutral Examination of Interchanged stock.—The staff working under the Director of Wagon Interchange continued to examine wagons interchanged between Railways at the following junctions :—

Broad Gauge.	*Metre Gauge.*
Agra Cantonment.	Katihar.
Agra East Bank.	Kasganj.
Ajni (Nagpur).	
Chheoki.	
Ghaziabad.	
Khanalampura.	
New Delhi.	
Waltair.	
East Dock Junction.	

Certain staff under the Director of Wagon Interchange were also posted at Moghalpura, Lillooah and Jhansi Workshops last year for the purpose of examining wagons after periodical overhaul. This arrangement continues.

45. Operating—General.—With the increased tempo of military operations against Japan in the East, the demands on Railways for the movement of military personnel and stores became still more heavy. Special efforts were made by Railways to cope with the heavy demands. To cater for the increased personnel traffic, all Broad Gauge coaching stock earmarked

by Railways for military traffic was brought under a pool and 49 sets of standard Military Block Rakes were formed. These were placed under the direct control of the General Headquarters (India). Special time-tables, prescribing timings over all the main routes, were brought into force for military 'personnel' as well as 'stores' specials, which enabled General Headquarters (India) to make the best use of the available stock. In addition to this and the defence services coaches which continued to run during the year, more regular Military Mail trains were run between fixed points, to cater for the increased military traffic. This helped to reduce the number of military personnel to be carried by civil trains and released more room in these trains for civil traffic.

Towards the latter part of the year under review the Central Government prohibited improper travelling on trains under Defence of India Rules (Rule 85-*c*). This measure effectively checked travelling by passengers on roofs, steps and footboards of vehicles.

46. Working of the organisation of the Director General of Railways, Calcutta Area.—Early in 1944, the need was felt for the establishment of a single local authority to direct and control the working of Railways in the Calcutta Area. Accordingly, a Director General of Railways, Calcutta Area, was appointed in April 1944, as the local representative of the Railway Board in that area.

The Director General's jurisdiction extended over the entire Broad Gauge Section of the Bengal and Assam Railway and the Calcutta Port Commissioner Railway and over Sections east of Khargpur on the Bengal Nagpur Railway, and east of Panagar and Bansbaria on the East Indian Railway.

The Director General's task was principally to ensure liaison between the different authorities in his area, to hold the balance between them, to achieve smooth working and to help in difficulties when they arose.

The Director General was a member of the Assam Line of Communications Panel, presided over by the D.D. Movements (Eastern) and charged with the task of regulating all military traffic moving up the line of Communications. In addition, he presided over periodical meetings of the Operating Heads of the Calcutta Railway, and he, or his representatives, attended a number of other important meetings convened to maintain smooth working between the Railways and military authorities. He was also charged with the supervision of the control of petrol tank wagons in his area, and of the wagon supply for the movement of coal from the Bengal and Bihar Collieries.

The Director General and his organisation did very valuable work during the year in connection with the proper maintenance of the Line of Communications traffic.

47. Transport of Coal.—During 1944, from the point of view of production, the Coal position took a serious turn, necessitating a very rigid control on the distribution of coal. Up to June 1944, the detailed distribution continued through the Controller of Coal Distribution under the administrative control of the Department of War Transport but onward from June 1944, with a view to a more efficient co-ordination between the production and distribution, the Government of India decided to place the production and distribution of coal under the Supply Department. The Controller of Coal Distribution was redesignated as Deputy Coal Commissioner (Distribution) and in order to maintain the necessary link with Railway Transport continued to exercise the functions of Transport Advisory Officer, Railway Board.

Although there was a substantial drop in the production of coal due to other competing demands of exceptionally high priority such as Military Operating Traffic, the transport of coal continued to be a problem, and in order to achieve the maximum results the Deputy Coal Commissioner (Distribution) maintained a day-to-day contact with the principal Coal Loading Railways and attended the monthly operating meetings of the Railway Board.

Although conditions of exceptional nature now and then retarded the movement of traffic on the whole, the Railways were able to move almost the entire quantity of coal raised during the year 1944, and the manner this was achieved was a credit to the Railway System of the Country. To meet the periodical coal shortages in the different Industrial Areas, Railways were frequently called upon to divert traffic already in transit or to make arrangements for despatch of coal by Special Trains. All this happened at a time when the stock position of Locomotive Coal on the Railway System was in a precarious condition. In the general interest of the Country, the Railways were called upon to work to very low stocks, thereby releasing coal for Military and industrial use.

47.1. Coal supply and coal stock situation.—The coal supply position which continued to be difficult during the latter half of 1943-44, began to evince signs of improvement at the beginning of 1944-45. The stocks of steam coal on Class I Railways which stood at 15·6 days' consumption requirements at the beginning of the year, rose steadily to the level of 21·2 days' requirements on 10th June 1944, but, with the advent of the monsoon and consequent low raisings, the position from then onwards began to decline. In spite of the fact that, with effect from 1st June 1944, the responsibility for the production of coal and its distribution at controlled rates to various consumers (including Railways), was assumed by Government and supplies were programmed in accordance with the monthly allocations decided by the War Resources Committee of Council, despatches from Mines to Railways could not be maintained even up to bare consumption level. In consequence steam coal stocks, which had remained fairly steady at the level of 20 days' consumption requirements between the period 20th June to 20th August, dropped to 18·8 days on 30th September 1944 and thereafter steadily declined to a level of 15·2 days' requirements at the end of December 1944. Owing to inadequate output the position continued to rapidly deteriorate resulting in the development of a serious situation, and coal stocks declined to 12 days' requirements on 31st January 1945, the lowest level recorded during the year, *i.e.*, a drop of 9 days as compared with the position on 10th June. During the period of maximum decline from October 1944 to January 1945 the stock on several Railways especially the North Western, Oudh and Tirhut, Great Indian Peninsula and Gondal Railways deteriorated to a dangerously low level on more than one occasion causing serious operating difficulties, and a further drastic curtailment of train services was only avoided in several instances by the diversion of coal consigned to public consumers, to the Railways concerned and by transfers from other Railways whose stocks were in a relatively better position.

Railway operation was also handicapped by an acute shortage of the higher grades of coal which necessitated the use of inferior grades on main line services and resulted in heavy losses in time on the road and a considerable increase in engine failures. These factors seriously affected operating efficiency and caused dislocation of traffic.

With the advent of the better raising months there was an improvement in output from January 1945 onwards, and as supplies to Railways were augmented a gradual improvement in the general situation was effected. Stocks of steam coal on Class I Railways rose to a level of 14·1 days' requirements by the end of February 1945 and to 14·5 days' requirements by the close of the year.

B.—*Commercial.*

48. Alterations in Rates and Fares.—The general policy of discouraging all but essential traffic was continued and, where possible, effective measures were taken to achieve this object.

The following were the important changes made during the year :—

(i) With a view to avoiding re-booking and consequent heavy congestion of wagons containing fresh fruits received from other Railways at Delhi, special rates (on the basis of Re. 1 per

4-wheeled wagon per mile) for fresh fruits in wagon loads by passenger train from New Delhi, Delhi and *viâ* Delhi to 14 important stations on the North Western Railway were introduced with effect from 1st June 1944.

(ii) Issue of week-end return tickets of all classes in local booking over the Bengal and Assam Railway and through-booking with the Darjeeling-Himalayan Railway and the India General Navigation and Royal Steam Navigation Companies' Steamer Services was suspended with effect from 5th August 1944.

(iii) Reduced lump sum vehicle rates for the transport of goats and sheep by passenger train from Lalgola and Sirajganj Ghat to Calcutta were cancelled from the 7th January 1945.

(iv) In view of the fish shortage in Calcutta quarter-parcels rate at owner's risk on an average weight of 15 seers per hundie was introduced for fish spawn and carp fries intended for rearing purposes, when booked from Calcutta to Canning and Khulna and from Ballygunge to Canning and from Dum Dum Junction to Khulna.

(v) The prohibition on the booking of certain articles by passenger train imposed in 1942-43 was continued and from 1st June 1944 certain additional articles were included in the list of articles so prohibited.

(vi) With a view to equalising, within close limits, the overall costs by rail and sea, so that trade may be relegated to the one or the other route, as may be convenient, port-to-port rates for piece-goods, cotton, gunnies, iron and steel; Divisions " A ", " B " and " C ", jute, paper and salt have been enhanced. As a sequel thereto, rates bearing on port-to-port rates have also been enhanced suitably.

(vii) A Coal Production Fund Cess and a Coal Mines Welfare Cess were levied with effect from 1st October and 1st December 1944 respectively on coal, coke and patent fuel despatched from all collieries situated in the Provinces of Bengal and Bihar. These cess charges have been combined with other similar charges previously being levied on this traffic and are now collected in the form of one consolidated amount of charge under the head " Labour Department Central Cess ".

49. Efforts to secure better wagon loads.—The special measures which were adopted during previous years such as the introduction of " nominated loading " and the regulation of " smalls " traffic by a quota system were continued during the year. Wherever possible, minimum weight conditions were attached or enhanced so as to improve the load factor. Constant vigilance was exercised on the loading of wagons by the Inspecting officers and their staff.

The practice of treating Sundays, Christmas days and Good Fridays as *dies non* for the purpose of demurrage was discontinued.

With a view to eliminating detention to wagons, weighment on weigh-bridges of wagonloads of the following description was stopped by the South Indian Railway :—

(i) bags of grain and pulses, salt, etc., of uniform size and weight, where the total weight of each consignment can be computed.

(ii) ashes, lime, etc., chargeable on the carrying capacity of the wagon used.

(iii) bulky goods like straw loose, cotton loose and Military goods charged at wagon mile rates.

Similar action was taken by the Bengal and Assam Railway in respect of wagon-load traffic in timber, canes, grain and pulses, coconut oil, mustard oil, molasses, sulphur, coke (in local booking), and oil cake booked to or from Sealdah and Chitpur.

On the Madras and Southern Marhatta Railway

(i) standard weights were adopted for cement, sugar, matches and groundnuts in respect of certain specified movements,

and (ii) charges on tobacco consignments were made on the basis of the weight shown on transport permits issued by the Central Excise Department.

A standard weight of 2 maunds 1 seer per bag was fixed for charging consignments of salt in bags booked from Karachi Bunder, Kiamari, Landhi and Dhabeji on the North Western Railway and from Chitpur, Chitpur Ghat, Bagh Bazar and Sulkia to stations on the Bengal and Assam Railway.

The North Western Railway also eliminated re-weighment of wagons at weigh-bridges in certain cases.

At important goods booking stations on the Oudh and Tirhut Railway duty hours of goods staff have been so adjusted as to enable the work of goods sheds and factory sidings being carried out on Sundays.

On the North Western Railway daylight hours have been extended from 7 to 17 hours to 7 to 19 hours.

50. Co-ordination of rail-road and water transport.—During the year under review the Railway Board issued a directive, laying down their policy on the operation of Road Transport by Railways and suggesting the adoption of steps for the running of passenger and goods services. Brief particulars of the action taken by certain Railways in implementing this policy and in encouraging traffic to move by an alternative (sea, river or road) route, are indicated in the following paragraphs :—

(1) *Bengal and Assam Railway.*—This Railway commenced running a lorry service with effect from 5th May 1944 through the agency of Dooars Planters' Association, for the carriage of tea and coal between Siliguri and Bagrakota. The service is being operated departmentally from 15th October 1944.

(2) *Bengal Nagpur Railway.*—This Railway will be associated in the shareholding as well as in the management of two road companies, *viz.*, " Provincial Transport Company Ltd." and " Central Provinces Transport Services Ltd.".

(3) *Bikaner State Railway.*—Proposals for the running of a bus service departmentally for the carriage of passengers between Sadulpur railway station and Taranagar, a distance of 23 miles, were under consideration at the close of the year.

(4) *Bombay, Baroda and Central India Railway.*—It is proposed to float rail-road companies in 11 different zones in the Bombay Presidency, three of which will serve the areas covered by this Railway. Negotiations in one zone are very advanced and it is hoped to finalise matters shortly.

Negotiations with States are in progress and the aid of the Residents in Rajputana and Central India has been enlisted.

(5) *East Indian Railway.*—The arrangement whereby foodstuffs from Up-country stations to destinations in Assam are moved *viâ* Patna Ghat and India General Navigation and Railway Company's steamers has been extended to mustard oil traffic consigned from Cawnpore by Messrs. Shaw Wallace and Company as Agents of the Government of Assam.

Road Transport Service organised by the Railway.—A Road Transport Service for the conveyance of goods traffic in "smalls" was introduced between Howrah and Asansol on 3rd July 1944, with a view to releasing wagons for military use and for other essential traffic and to relieving congestion on that heavy section. A fleet consisting of 50 vehicles was supplied to Messrs. Co-ordinated Transport Ltd. who were entrusted with the maintenance of the vehicles and their operation on the road, on a contract. This arrangement was cancelled from 30th December 1944, due to the failure of the contractor to run the service according to any schedule and to maintain the vehicles in good condition.

This Service was re-introduced from 26th February 1945 and is now being worked departmentally.

Other Road Services.—Arrangements are being made to form and to participate financially in Joint Stock Companies for running road transport services for passengers and goods in several areas in the United Provinces of Agra and Oudh, in Bihar and in Bengal.

(6) *Great Indian Peninsula Railway.*—A fleet of 20 lorries was released to this Railway and the operation of these lorries was started from 16th December 1944 on the Poona-Ahmednagar Section under the "Tied Mileage Unit" contract basis. As the Poona Municipality were not prepared to extend to this road service the exemption from octroi duties which is allowed to goods in transit by rail, the service was discontinued in the middle of February 1945.

Thereafter, the fleet was switched over to the Bombay-Poona road and is now being used to carry parcels and goods from Bombay to Poona and goods from Poona to Bombay.

During the period under review, only two Provinces through which this Railway runs had accepted the principle of rail-road co-ordination, *viz.*, the Central Provinces and the United Provinces. In conjunction with the Provincial Motor Transport Controller, Central Provinces and Berar, this Railway undertook negotiations to combine with Messrs. Chinoy & Co., in a Joint Company to be called "The Central Provinces Transport Services Ltd." and also to acquire shares in the existing "Nagpur Omnibus Company" to be re-named "The Provincial Transport Company Ltd.". It has been arranged with the Provincial Motor Transport Controller that the Province should be divided into two Zones and that the Central Provinces Transport Services Ltd., should operate in the Northern area while the Nagpur Omnibus Company to be called the Provincial Transport Company Ltd. should operate in the Southern portion.

(7) *His Exalted Highness the Nizam's State Railway.*—Road passenger services continued to be the main source of revenue. The policy of discouraging travel for *Jattras* and *Uruses* during present emergency was continued. The average earnings per bus mile for the year were 160·5 pies as compared with 146·0 pies in the previous year and the average occupation ratio was 81 per cent. as compared with 73 per cent. in 1943-44. As in previous years the scheduling of services with a view to maintaining suitable connections between road and rail, punctuality in running, and improving the standard of driving and maintenance continued to receive constant attention.

The vehicle mileage operated by goods vehicles increased from 762,520 in 1943-44 to 2,085,506 in 1944-45 and earnings increased from Rs. 3·95 lakhs to Rs. 13·37 lakhs. The increase in goods earnings and in vehicle miles was mainly on account of the operation of the Mobile Lorry Units working for the Hyderabad Commercial Corporation. Average receipts per goods vehicle mile increased from 99·5 pies in the previous year to 123·1 pies, due mainly to the higher earnings obtained from the Mobile Lorry Units in respect of which the average receipts per vehicle mile amounted to 133·2 pies.

(8) *Mysore State Railway.*—This Railway has been co-operating fully in routing traffic to Bombay and *viâ* by the sea-*cum*-rail route *viâ* Marmugao Harbour. A large volume of both inwards and outwards traffic was moved during the year by this route.

(9) *Madras and Southern Mahratta Railway.*—A Lorry service for the conveyance of parcels was introduced on 21st March 1945, between Madras and Bangalore. This Service, which is operated departmentally will, it is hoped, result in additional transport capacity becoming available on trains between Madras and Bangalore. Detentions to trains at stations will also be reduced, as with the availability of more room in brake vans, loading will be performed at a quicker speed.

(10) *North Western Railway.*—Two Lorry Services are being run departmentally on the Lahore-Pathankot and Lahore-Montgomery-Arifwala-Multan Sections, with pick-up services for selected stations *en route*.

This Railway has also obtained a large interest in the "Kulu Valley Transport Ltd." (operating between Nagrota and Kulu) and in the "Pindi Kashmir Transport Ltd." (operating between Rawalpindi and Srinagar). Efforts have been directed towards obtaining substantial interest in other road transport companies and forming new companies, in the Punjab, United Provinces and Sind.

(11) *Oudh and Tirhut Railway.*—The arrangement with the India General Navigation & Co., for the transport of Assam Government's supplies through the Rail-*cum*-river route continued during the period under review.

The Railway is also fully participating in the co-ordinated Rail-Road Scheme and arrangements are being made for the formation of, and financial participation in, Joint Stock Companies which will operate road services.

(12) *South Indian Railway.*—A Road Service for the conveyance of goods between Coimbatore and Ootacamund was introduced with effect from the 1st June 1944. This service is run departmentally and has helped to ease railway operation in the area by the avoidance of the transhipment at Mettupalaiyam and has facilitated transport over the Nilgiri Railway where there was a dearth of stock and power.

Arrangements for the through booking of goods traffic by the sea-*cum*-rail route from stations on this railway to Bombay, Kathiawar, Karachi, etc., and *vice versâ*, *viâ* Cochin and Mangalore, referred to in the Report for last year, have not yet been completed. The Bombay Steam Navigation Company have been appointed as the Railway's co-carriers and it is expected that through booking will be commenced shortly. There is also a proposal for the organisation of a regular country craft service on the East Coast.

51. Closer contact with business interests.—Railways continued to maintain close contact with trade, commerce and industry. At important centres, informal meetings were held with representatives of Chambers of Commerce, Trade Associations, and other Commercial Bodies and with merchants. The discussions related to a variety of subjects such as booking and transport facilities, short supply of wagons, restrictions on bookings, delays to goods, and settlement of claims. Railways which were members of Chambers of Commerce, also directly participated in the deliberations of these bodies. These contacts afforded a useful means of fostering better relations and understanding between the railways and trade and commercial interests.

52. Claims for compensation and refunds.—Due to complexities of operation created by the war, the large increase in traffic, congestion in yards and on sections, inferior packing and particularly the rise in prices making thieving more remunerative, a large increase in the number of claims since 1939 was inevitable. There was a heavy increase in the number of claims and applications for refunds of surcharges on goods and parcels received during the year as compared with the previous year.

Disposal, however, was expeditious and the average number of days involved in settlement of claims and refund cases was reduced to a great extent. Thus the year closed with reduced outstanding balances of claims cases on railways generally.

Additional staff for the disposal of claims was engaged and the strength of the Watch and Ward Staff was considerably increased. The work, however, continued to increase in volume in spite of speedy disposal.

The convention agreed upon by the principal railways to eliminate unnecessary correspondence in regard to the question of inter-railway liability and to speed up the settlement of claims referred to in last year's Report was extended for the duration of the war.

The following are some of the details by railways :—

Item No.	Particulars.	B. & A.	B. N.	B., B. & C. I.	E. I.	G. I. P.	Jodhpur.	M. & S. M.	Mysore.	N. S.	N. W.	O. & T.	S. I.
1	Number of cases involving compensation for goods or parcels lost, damaged or delayed carried over as unsettled at the close of the preceding year.	6,488	14,215	3,516	3,713	6,819	1,288	4,829	5,433	1,345	10,720	3,995	3,252
2	Number of claims received (and reopened) for compensation on account of goods or parcels lost, damaged or delayed during the current year.	32,430	27,600	21,514	55,574	41,265	5,485	17,730	8,142	3,773	77,099	12,533	13,773
3	Balance outstanding as unsettled at the close of the year.	5,429	15,927	2,990	2,700	9,460	1,912	3,788	4,577	1,355	11,263	3,795	2,160
4	Average time taken in settlement of claims shown under items 1 and 2 (days).	82	188	64	32	46	90	94	140	79	40	53	60

53. Prevention of ticketless travel.—Increase in the number of passengers travelling without tickets occurred on all principal railways during the year under review, the increase over previous year amounting to more than 7 lakhs, taking railways as a whole. The methods adopted for checking and collecting of tickets remained generally the same as in previous years. The difficulties of ensuring efficient check brought about by war conditions such as overcrowding and inadequate lighting of compartments remained unmitigated. Large numbers of Military Personnel continued to travel with unexchanged warrants. Many railways appointed additional staff to deal with the situation.

Surprise checks were found very effective. Several railways had Special Magistrates posted at their more important stations to enable expeditious trial of ticketless travellers. Besides these Courts, Mobile Courts also functioned on certain Railways with good results and had a salutary moral effect. Checks were made on running trains and offenders produced for summary trial before the Magistrates who accompanied the trains.

The special organisation set up at the Commercial Headquarters of the East Indian Railway to detect and deal with frauds, as reported last year, proved effective in combating ticket frauds. A case of major importance involving considerable loss of revenue to the East Indian and North Western Railways through the extensive use of forged Excess Fare Tickets was successfully followed up and the culprit arrested. The scheme of special checks in trains with the help of Touring Railway Magistrates adopted on the North Western Railway, as reported last year, continued to function satisfactorily. On the Bombay, Baroda and Central India Railway, the Mobile Central Ticket Checking Squads continued to produce good results both on the Broad Gauge and Metre Gauge sections. Similar Special Squads also operated satisfactorily on the South Indian Railway.

54. Mela Traffic.—As during the last year, restrictions had to be imposed on travel by rail to the more important *melas* and fairs held during

the year through the issue of Prohibitory Orders by Provincial Governments under the Defence of India Rules on requests from Railway Administrations concerned.

Some of the *melas* and fairs, travel by rail to which was thus prohibited, were :—

Kartiki Puranmashi *Mela* at Sonepore.

Nankana Sahib Fair.

Piran Kaliar *Mela* at Roorkee.

Kurukshetra *Mela*.

Kartiki Fair at Pandharpur.

Adh Kumbh *Mela* at Hardwar.

In connection with the last of the above *melas*, *viz*., the Adh Kumbh *Mela* at Hardwar, the Government of the United Provinces, in addition to the usual prohibitory order, also prohibited the entry of all persons into the prescribed Hardwar *Mela* Zone unless inoculated against Cholera not prior to a given date and in possession of a certificate to that effect signed by a Medical Officer authorised by the Government. The restriction was well enforced and was effective in reducing the number of pilgrims arriving Hardwar for the Adh Kumbh *Mela*.

CHAPTER V.

RAILWAY COLLIERIES.

55. Transfer of the Control of Railway Collieries to the Supply Department.—On account of the continued decline in coal raisings and increasing seriousness of the position, the War Resources Committee of Council decided that an expert should be appointed to concentrate on rapidly improving production and to co-ordinate and bring under one control all matters in connection with colliery labour, coal production, price, marketing, distribution and transport.

A Coal Commissioner was accordingly appointed early in 1944. His suggestion that the entire State Railway Coal Department, including the Railway Collieries should be absorbed, and should indeed form the nucleus of his organization, was strongly supported by the Labour and War Transport Departments. As the Chief Mining Engineer, with his office and expert staff, information and statistics, could be utilized advantageously and, of all the Collieries in Bengal and Bihar, the State Railway Collieries offered the best prospects of further exploitation quickly and at comparatively low cost, the Board signified their agreement to the Coal Commissioner's proposal.

Accordingly, the entire State Railway Coal Department and the control of Railway Collieries were, with effect from 1st June 1944, temporarily transferred, for the duration of the war to the Coal Commissioner's Organization to function under the administrative control of the Government of India in the Department of Supply. From the same date the output from State Railway Collieries was taken into the common pool.

56. The output from the principal Railway Collieries during the year 1944-45 compares with the previous year's output as follows:—

Colliery.	Owned by	Output. 1943-44.	Output. 1944-45
		Tons.	Tons.
1. Bhurkunda	B. & A., E. I. & N.-W. Railways	129,173	**136,423**
2. Kargali	G. I. P. Railway	505,151	**524,864**
3. Kurharbaree & Serampore	E. I. Railway	502,918	**582,345**
4. Joint Bokaro	E. I. & B. N. Railways	842,120	**856,312**
5. Joint Sawang	Do.	57,157	**61,146**
6. Jarangdih	B. B. & C. I. & M. & S. M. Railways	65,632	**65,934**
7. Talcher	M. & S. M. Railway	192,895	**192,421**
8. Kurasia	B. B. & C. I. Railway	295,915	**290,119**
9. Argada	B. N. Railway	208,112	**162,997**
10. Deulbera	Do.	78,817	**73,738**
	Total	2,877,890	**2,946,299**

57. Coal mined in India.—In 1944 the coal mined in the various provinces of British India amounted to 23,487,571 tons as against 22,447,494 tons in 1943, an increase of 1,040,077 tons.

58. Coal despatched by rail.—The quantities of coal carried by the East Indian and Bengal Nagpur Railways were as follows:—

	1943-44.	1944-45.
	Tons.	Tons.
East Indian Railway	13,552,767	**14,237,774**
Bengal Nagpur Railway	8,354,173	**8,204,077**
Total	21,906,940	**22,441,851**

CHAPTER VI

ROLLING STOCK AND MATERIALS

59. Additions to equipment.—During the year, the following locomotives and rolling stock, including arrears brought forward from previous years were on order for broad and metre gauge railways:—

Items.	Broad Gauge.	Metre Gauge.
Locomotives	386	*306
Coaching Stock	580 Units	239 Units
Goods Stock	9,261 ,,	*1,766 ,,

* NOTE.—This stock was subsequently taken over by the War Department for use in India.

New locomotives and rolling stock actually placed on the line during the year as additions or in replacement were as under:—

Items.	Broad Gauge.	Metre Gauge.
Locomotives	282	213
Coaching Stock	101 Units	52 Units
Goods Stock	5,660 ,,	406 ,,

(One Unit=one four-wheeler.)

59.1. Engines.—The average tractive effort per engine rose from 26,357 lbs. in 1943-44 to 26,667 lbs. in 1944-45 on the broad gauge and from 14,928 lbs. to 15,485 lbs. on the metre gauge.

60. Manufacture of boilers and locomotives in India.—During the year the Board decided to call upon the Consulting Engineers to prepare complete proposals for the remodelling of the locomotive workshop at Kanchrapara, for locomotive building. In order to save time the Consulting Engineers included their proposals in a series of despatches the first of which reached India in December 1944. At the close of the year sufficient information had been received to enable civil and mechanical engineering officers to be placed on special duty with the Bengal and Assam Railway to draw up detailed plans and prepare estimates for the remodelling of the works.

In regard to the sale of Singhbhum workshops to Tatas for the immediate manufacture of boilers and for future development into a locomotive building works, the Government concluded their negotiations with the firm and an agreement was finalised. An indent for special type of machinery for boiler manufacture was placed earlier in the year by Government on the Secretary of State for India for procurement in the United Kingdom to expedite the development of this project. An order for 100 boilers for superheater goods engines was placed on these workshops in October, 1944 work on which was commenced without delay. It was arranged that the execution of this order was to be taken over by Tatas from the date of purchase of the shops.

Ajmer workshops of the Bombay, Baroda and Central India Railway have continued to manufacture locomotives to a limited extent commensurate with its spare capacity and difficulties met with in regard to stores. An order for two YB metre gauge locomotives was completed for the Oudh and Tirhut Railway. One had been handed over and the other was undergoing trials at the end of the year. Besides this, work on another order for ten XT_1 tanks locomotives for the North Western Railway was proceeding.

61. Rationalization of workshop manufacturing capacity.—During the year under review the seven geographical groups held a total of thirty-three meetings and considerable progress was made by each group to achieve self-sufficiency in the manufacture of locomotive, carriage and wagon spare parts enabling more effort to be devoted to the ultimate object of the scheme which is to achieve self-sufficiency by the Indian Railway system as a whole. Future prospects in this respect are good as standardization of locomotives during the war was furthered by the importation of considerable number of standard type engines which will eventually decrease the number of classes. It is also the intention to concentrate on the standardization of individual parts and fittings in order to facilitate their bulk manufacture by Indian Railways.

62. War Branch.—The War Branch dealing with arrangements for the supply from Indian Railways of War Department requirements of locomotives and rolling stock for service in India and Overseas was transferred from the Central Standards Office to the Railway Board Mechanical Directorate in June 1944.

62.1. Rolling stock and ambulance trains.—The requirements of the War Department of broad gauge and metre gauge ambulance trains, independent ward coaches, kitchen cars, special military cars, saloons for Entertainment National Service Association and Fauji Dil Khush Sabha Parties, etc., continued to increase and were met by conversions of the existing stock.

A blood transfusion coach with an attached generator car was provided for the collection and storage of blood plasma.

Following the receipt of air-conditioning equipment from the United Kingdom and the United States of America, two ward cars each on eleven broad gauge trains and five metre gauge trains were air-conditioned and placed into regular service.

Due to the improved war situation in Mid-East, many of the locomotives and wagons sent overseas were returned from Persia and Iraq Command to India.

63. Supply of rails and fishplates from indigenous sources.—The restricted supplies of steel referred to in the last year's Report continued in the year under review. The tonnage of rails ordered by all railways from the two steel companies (*viz.*, Messrs. The Tata Iron and Steel Company, Limited, and the Steel Corporation of Bengal Limited) for supply in 1944-45 amounted to 37,779 tons and the tonnage of fishplates ordered from Messrs. Tatas (Steel Corporation of Bengal do not roll fishplates) amounted to 4,128 tons. Orders could only be placed up to the limit authorised by the Iron and Steel Controller.

The actual quantity supplied against these orders in the year ending 31st March 1945, however, amounted to 32,581 tons of rails and 2,917 tons of fishplates only.

64. Value of Railway material purchased.—The value of stores purchased by Class I Railways (excluding the Bikaner, Jodhpur, Mysore and His Exalted Highness the Nizam's State Railways which are mainly or wholly the property of Indian States) increased from Rs. 26·71 crores in 1943-44 to Rs. 45·42 crores in 1944-45. The value of "indigenous materials" purchased went up by Rs. 11,34 lakhs and that of "imported materials" also increased by Rs. 7,37 lakhs. The increase was general under all classes of stores but was particularly heavy under rolling stock (Rs. 7,82 lakhs), hardware, copper, tin and zincware, fuel and fuel oil (Rs. 5,71 lakhs), permanent-way material and track tools (Rs. 2,87 lakhs) and miscellaneous stores grouped in the statement below as "all other

stores" (Rs. 1,58 lakhs). A summary of the value of the stores purchased is given below. The detailed figures are given in Appendix A, pages 240-243 of Volume II of this Report :—

Particulars.	Value of imported materials (in lakhs).			Value of indigenous materials (In lakhs).	Total purchases (in lakhs).	
	Purchased direct	Purchased through agents in India.	Total imported materials.		**1944-45**	1943-44
	Rs.	Rs.	Rs.	Rs.	**Rs.**	Rs.
A.—Bridge work and its parts, fittings and special fastenings . .	..	..	..	7	**7**	1
B.—Engineering plant and components including all hand and power machinery	..	13	13	11	**24**	12
C.—Workshop machinery, plant and equipment including pneumatic machinery and tools . . .	2	26	28	18	**46**	25
D.—Permanent-way material and track tools	92	8	1,00	4,87	**5,87**	3,00
E.—Rolling Stock	2,55	5,23	7,78	3,67	**11,45**	3,63
F.—Building material, water mains, sewage system and track and yard enclosing material and signal and interlocking material, etc.	..	12	12	91	**1,03**	80
G.—Stores hardware, copper, tin and zincware, all leather, canvas and india-rubber in bulk, metals, painters' stores, timber and fuel and fuel oil, etc.	7	1,41	1,48	14,80	**16,28**	10,57
H.—Electrical and train and locomotive lighting plants and materials, etc., and telegraph and telephone equipment	4	59	63	35	**98**	87
All other stores	5	1,38	1,43	7,61	**9,04**	7,46
Total . .	3,65	9,20	12,85	32,57	**45,42**	26,71

64.1. Purchase of wooden sleepers.—The total amount spent on wooden sleepers on Class I Railways (excluding Bikaner, Jodhpur, Mysore and His Exalted Highness the Nizam's State Railways) was Rs. 1·84 crores in 1944-45 as compared with Rs. 1·01 crores in 1943-44.

65. In-take of indigenous goods.—The comparative figures for total purchases for the years 1943-44 and 1944-45 in respect of all Indian Government Railways are given below. These include purchases made through the Supply Department, the Textile Commissioner and other Government agencies.

(In lakhs of rupees.)

Year.	Total value of purchases.				
	Stores imported direct.	Imported Stores purchased in India.	Stores of Indian manufacture or indigenous origin.	Total value of Imported and Indigenous Stores.	Percentage of Col. 4 to Col. 5.
(1)	(2)	(3)	(4)	(5)	(6)
1943-44*	58·85	4,89·30	21,22·76	26,70·91	79·5
1944-45	**3,64·61**	**9,19·99**	**32,56·99**	**45,41·59**	**71·7**

* NOTE.—These figures include the purchases made by the Bengal Nagpur, Madras and Southern Mahratta and South Indian Railways which were then Company-managed, but have since been taken over by the Government.

The increase in the total value of stores purchased was mainly due to increase in prices and the necessity to improve stocks where possible against the vagaries of the supply position. The increase under column 2—Stores imported direct—was due to the easing of the shipping position, resulting in greater imports against outstanding orders for stores placed abroad.

66. Value of stores purchased through the Supply Department.—The comparative figures for 1943-44 and 1944-45 are given below:—

(In lakhs of rupees.)

Year. (1)	Total value of stores purchased. (2)	Value of stores purchased through the Supply Department.	
		Amount. (3)	Percentage of Col. 3 to Col. 2. (4)
1943-44*	26,70·91	4,23·75	15·9
1944-45	**45,41·59**	**6,39·69**	**14·1**

* Same remarks as for previous paragraph.

67. Value of stores purchases controlled by the Railway Board.—As in previous years, the Railway Board continued to purchase rails, sleepers (steel, cast iron and wood) and wagons for all Indian Government Railways. But with the introduction of the Coal Control Scheme from the 1st June 1944, the Railway Board ceased to control the supply of coal to Railways. Figures for 1943-44 and 1944-45 in respect of purchases, other than fuel and fuel oil, controlled by the Railway Board are given below:—

(In lakhs of rupees.)

Year. (1)	Total value of stores purchased. (2)	Value of stores purchases controlled by the Railway Board.	
		Amount. (3)	Percentage of the total value of stores purchased. (4)
1943-44*	26,70·91	5,58·53	20·9
1944-45	**45,41·59**	**8,65·51**	**19·1**

* Same remarks as for previous paragraph.

68. Value of Lease/Lend purchases controlled by the Railway Board.—The total debits raised by the Deputy Chief Accounts Officer, American Purchases, New Delhi, against Railways in the year 1944-45 for the Lease/Lend Stores controlled by the Railway Board amounted to Rs. 15,31,65,860.

69. Direct purchases by Railways.—The value of direct purchases made by Railways during 1944-45 amounted to 30,36 lakhs, as compared with 12,28 lakhs during 1943-44. The figure for the year 1944-45 includes purchases of fuel and fuel oil and all purchases other than those made by the Supply Department or controlled by the Railway Board.

70. Stores Balances.—The statement below compares the total stores balances at the end of 1944-45 with those at the end of 1943-44:—

(In lakhs of rupees.)

Year.	B. & A.	B. N.	B. B. & C. I.	E. I.	G. I. P.	M. & S. M.	N. W.		O. & T.	S. I.	Other Rlys.	Total.
							Commercial.	Strategic.				
1943-44	3,06	2,60	2,03	3,15	3,20	86	3,72	39	67	1,36	25	21,29
1944-45	**3,67**	**3,01**	**2,12**	**3,56**	**3,89**	**1,05**	**3,25**	**28**	**76**	**1,68**	**61**	**23,88**

71. Engine Headlights situation.—As Engine Headlight Bulbs and certain vital parts of the generating plant such as ball bearings and special turbine rotors cannot yet be manufactured in this country they have to be obtained by import from the United Kingdom and the United States of America. Shortages in these materials resulted in a number of trains having to run without headlights. The Board, however, issued instructions for special care to be taken in the maintenance of Headlight equipment with a view to conserve and keep in efficient service as long as possible all parts difficult of replacement. The resulting efforts of railways coupled with recent importations of headlight bulbs, ball bearings, etc., have effected an appreciable improvement but the general supply situation in respect of Engine headlight bulbs and fittings cannot yet be regarded as satisfactory.

72. Timber supply situation.—The best quality of teak which comes from Burma was denied to India with the invasion of that country and the limited stocks available were soon exhausted. India had, therefore, to depend on her own indigenous teak and other timbers at a time when the demands of the fighting services were attaining their highest level. As supplies were inadequate, a Timber Allocation Committee was formed in 1944 to pool the demands of all indentors and to ration and allocate supplies according to their relative importance and urgency.

Throughout the earlier part of the year actual supplies fell far short of requirements. For the final quarter of the year Class I Railways' minimised demands totalled about 11,500 tons against which an allotment of only 7,000 tons could be secured but the actual deliveries obtained amounted to 8,197 tons.

At the end of the year the working stocks of Class I Railways totalled only 17,059 tons.

73. Train lighting lamps situation.—Owing to the higher incidence of theft and vandalism, coupled with the pre-occupation of lamp manufacturers in India, the United Kingdom and the United States of America with the production of other types in heavy demand there was a serious shortage of train lighting lamps during the year under review, and as a result most trains had to run with inadequate lighting. Although every attempt was made to encourage indigenous production and to obtain accelerated and augmented imports—even by air—the response obtained has been considerably short of requirements. Although some improvement in the situation has been effected, every effort is being maintained to achieve more adequate and regular supplies.

74. Supply situation of other vital stores or components of first importance.

Indigenous Stores—Lubricants.—A watchful eye had to be kept on the situation but on the whole the stock position on Railways was satisfactorily maintained.

Imported Stores.—The stock position of imported railway stores, especially in respect of such items as copper firebox plates and train lighting bulbs, etc., early in the year under review was serious on account of the delay in compliance with indents placed on the United Kingdom. The constant representations of the Railway Board to the Secretary of State and the Quarter Master General in India, who backed the indents, enabled deliveries of many items to be improved towards the end of the year. The position in respect of train lighting bulbs still remained serious, however, as supplies against indents on the United Kingdom and the United States of America were well below requirements.

Supplies against indents for the war operational requirements of the Bengal and Assam Railway were also delayed and it was necessary to depute the General Manager of the Bengal and Assam Railway, when on leave in the United Kingdom, to contact the various authorities in London and to press for accelerated deliveries. As the support of the Quarter Master General had also been obtained for these indents, the War Office was also contacted and some improvement of the position resulted from these representations.

75. Situation regarding theft of railway property—carriage fittings, etc.—Cases of damage to and theft of Railway carriage fittings and equipment continued to be heavy during the year under review. In order to check these, Railways were asked to take the following measures :—

(i) Improve watch and ward and lighting arrangements in washing lines and coaching stock sidings.

(ii) Improve fencing around coaching stock stabling sidings.

(iii) Improve arrangements for the locking of stock left on platform lines prior to being shunted into sidings.

(iv) Co-operate more actively and closely with the Government Railway Police in protecting stabled stock.

(v) Adopt use of lamp locks and "iron clad" fittings to prevent theft of bulbs.

Several reports of thefts of stores from Railway workshops were received by the Board and, where necessary, Railways have been asked to strengthen their watch and ward staff, improve lighting arrangements in workshop premises and check entry of unauthorised persons. They have also been asked to invariably adopt locked bins, cupboards, etc., for the more valuable and easily pilferable stores and to arrange for stock verifications at shorter intervals.

In order to arrest the increase in the incidence of thefts of Railway stores, the Railway Stores (Unlawful Possession) Ordinance, 1944, was promulgated, thus making the unlawful possession of Railway stores a punishable offence.

76. Efforts to obtain fuel economy.—In view of the continued imperative demand for coal to meet the needs of the expanding war industries and the requirements of shipping, the Fuel Economy Drive during the year under review continued to receive the concentrated attention of all concerned and every possible avenue was explored in order to secure maximum economy in fuel consumption. The fuel economy measures as practised on British Railways were studied and all possibilities towards minimising coal consumption and ensuring the maximum efficiency in coal usage were examined and put into force to the fullest extent possible. From time to time instructions were issued by the Board impressing upon Railways the vital importance of effecting the utmost possible economies in coal consumption, and special attention was drawn to the following :—

(i) For prevention of theft on running coal trains, escorts to be provided, if necessary, through areas where thefts were rampant;

(ii) A review of the whole situation with the greatest thoroughness in order to ensure that no practical measure, however insignificant, towards fuel economy, was neglected and that every possible step was taken for adequate protection of Railway stock

against thefts and leakages by exercising necessary check at every stage to ensure that—

(*a*) coal was not wasted, and that

(*b*) if losses were taking place, they were immediately located—making remedial action possible.

In addition the Chief Commissioner of Railways addressed a personal letter to the General Managers of Class I Railways forwarding a summary of all the instructions issued by the Board from time to time since March 1943 and impressing upon them the imperative need for fuel economy.

At a Fuel Economy Meeting held on the 31st July and 1st August 1944 in the Board's Office, the fuel economy measures taken by Railways during 1943-44 and prior to that date, were again exhaustively discussed with a view to their intensification and expansion, and the Railway Administrations were specially asked to carry out the recommendations made by the Committee.

Subsequently a separate Fuel Economy Section was set up under the Coal Commissioner's Organization to organise and co-ordinate fuel economy throughout all industries, and in pursuance of this, the Deputy Coal Commissioner (Distribution) held a Fuel Economy Meeting in November 1944 with the Fuel officers of all Class I Railways wherein the various measures adopted by each administration were discussed in every detail. Later in the year, the Coal Commissioner's Fuel Economy Section made investigations into the working of railway workshops in relation to their coal requirements for different purposes and the recommendations made in this connection were circulated to the Railway Administrations for taking necessary action.

Some of the new measures adopted by Railways during the year in addition to those already in force and under vigorous pursuit, are briefly outlined below :—

(*a*) Introduction of trip fuel control whereby actual fuel consumption on locomotives for any one trip was checked against a definite ration.

(*b*) Use of alternative fuels such as a mixture of coal and cinders, scrap wooden sleepers, etc., in stationary boilers and shunting engines.

(*c*) Periodical issue of Fuel Economy bulletins by Railways giving the results obtained during the period under review, for the information of the staff.

(*d*) More intensive inspection of locomotives in sheds with special regard to the rectification of defects affecting coal consumption.

(*e*) Salvaging of coal in all depôts and traffic yards.

(*f*) Special steps taken to prevent thefts and pilferage, *e.g.*, recruitment of extra chowkidars, watch and ward staff, etc., improvement of lighting in locomotive shed areas, provision of walling or fencing, spraying of whitewash over coal and improvement of locomotive coal stacking grounds.

(*g*) Lagging of boilers and steam lines, as far as practical, of stationary plants in sheds.

(*h*) Increased use of water softening plants.

(*i*) Trials conducted with different varieties of coal to determine the most suitable variety for a particular service.

(*j*) Engine links altered suitably with a view to save coal.

(k) Fitting of old locomotive superheater elements inside the chimney of stationary boilers.

(l) Modification of firebar spacing in engines to suit the type of coal used in order to obtain the minimum coal consumption.

It may, however, be mentioned that the desired results of the drive for fuel economy very frequently could not be fully achieved on account of the necessity for the acceptance of unfamiliar and often unsuitable grades, qualities and sizes of coal. Economy was therefore forced in many cases to yield first place to availability, and the following factors adversely affected coal consumption on locomotive services:—

(a) Expeditious movement of military personnel and war supplies having preference over economy.

(b) Supply of inferior and unsuitable quality of coal for various services.

In spite of this, it has been found possible to obtain substantial savings in fuel consumption as is borne out by the fact that although the total gross ton-miles worked on Class I Railways during 1944-45 showed increases of approximately 13 per cent. and 3 per cent. under passenger (including proportion of mixed) and goods services (including proportion of mixed) respectively, over the previous year, the increase in the total fuel consumed during the year by these Railways amounted to only 3·3 per cent.

Central Standards Office for Railways.

77. Civil Engineering Branch.—During the year under review, the more important works completed by the Civil Engineering Branch included:—

(a) *for military requirements*—design of double intersection type Callender-Hamilton unit construction bridges, erection schemes, compilation of additional chapters for the metre gauge Military Bridging Handbook, 1 in 12 and 1 in 8½ turnouts for 3′-6″ gauge, compilation of further statements for and investigation into the transport of over-dimensional consignments by rail.

(b) *standard designs* issued included reinforced concrete pipe culverts of various sizes (alternative, with concentric reinforcement), guard rail profiles for level crossings, 90R insulated rail joints, fishing fit nose blocks for crossings, facing point locks and split stretcher bars.

78. Mechanical Engineering Branch.—During the year under review the more important drawing and design work undertaken included:—

Construction and part drawings of "BOB" type broad gauge ballast hopper wagon of 55 tons capacity and "TPR" type broad gauge petrol/kerosene oil tank wagon using rationalised steel sections. The "BOB" type ballast wagon represents an entirely new design with a high load/tare ratio. The "TPR" type wagon is a dual purpose tank wagon with an appreciably higher load/tare ratio than the "TP" type petrol tank wagon on which the design was based.

Several new WAR drawings relating to revised layouts of ambulance trains; conversion of horseboxes to sheepvans; modifications to rail patrol-vehicle wheels; conversion of wagons to suit special traffic; change in design of standard equipment to suit materials and methods of construction adopted due to war shortages.

Investigations were carried out into interchangeability of the boilers of the various railways' engines of the BESA 4-6-0 type to enable a bulk order for boilers to suit all railways to be placed in Australia.

Investigations were commenced in connection with the conservation of timber in the construction of new coaching bodies, and the reduction of tare weight of the bogies of broad gauge coaching vehicle underframes.

Typical layouts of broad gauge lower class coaching stock were prepared in connection with the reconstruction programme.

In accordance with the recommendations contained in the Inglis-Appleton report that the capacity of tenders for both coal and water should be increased, the matter has been investigated and proposals for coal and water capacities of new designs of broad and metre gauge tenders were circulated to all Class I Railways for comments.

An index of modifications required to be carried out to the imported locomotives and wagons *ex*-United States of America and Canada was compiled and maintained up to date.

The normal work of the Mechanical Drawing Office in keeping standard drawings of rolling stock up to date continued as far as the demands for work of higher priority permitted.

79. Specifications Branch.—During the period under review War Emergency Revisions to seven Indian Railway Standard Specifications were issued while four others previously issued were withdrawn.

With a view to providing a common basis of description of grinding wheels by all indenting railways and simplifying the bulking of indents, two Indian Railway Standard drawings including all the wheels and segments used by Indian Government Railways were issued.

The normal work of the Specifications Branch in keeping Indian Railway Standard Specifications up to date continued as far as the prior demands of war work permitted.

Eight Indian Railway Standard Specifications were revised during the year.

A bulletin dealing with reclamation of materials was issued with a view to keeping the railway administrations informed of the latest reclamation methods practised by other railways.

Particular specifications for wagons, boilers and underframes against Railway Board's call for 1945-46 were prepared—orders were placed in India as well as abroad, *e.g.*, the United States of America, the United Kingdom, Canada and Australia.

Sixty new/revised Indian Stores Department and ten new/revised British Standard Specifications were adopted for use on Indian Railways.

80. Standardization Committees.—The Bridge, Signalling and Interlocking and Track Standards Committees each met once during the year.

In view of requirements of planning post-war developments of locomotive and rolling stock design, the annual meetings of Locomotive Standards and Carriage and Wagon Standards Committees suspended since February 1942 and March 1941 respectively were revived with effect from the beginning of 1945.

The Carriage and Wagon Standards Committee, therefore, met in February 1945 and dealt with points which had arisen in the period since March 1941 on the different features relating to coaching and wagon stock. Among the subjects on which recommendations were made were:—

(*a*) design of future lower class coaching stock with special reference to—

- (i) layout,
- (ii) reduction in tare weight,
- (iii) form of body construction,
- (iv) sanitary fittings.

(*b*) design of Indian Railway Standard fittings found to be responsible for heavy maintenance on Railways.

(*c*) design of weather-proof wagon doors.

(*d*) effect on the carrying capacity of wagons when loaded with concentrated loads.

On account of the members being pre-occupied with War work no meetings of the Electrical Standards Committee and Standing Committee on Standards and Specifications for Indian Railways were held during the period under review.

81. Research and Development.

81.1. Civil Engineering Branch.—Trials of various track fittings and tools were continued. Investigation regarding reclamation of materials to reduce consumption of steel sections by re-conditioning items such as track and signal fittings and track tools used by the Civil Engineering Branch of railways also continued.

81.2. Specifications Branch.—The paint exposure and corrosion test panels were examined and the tests continued. The Government Test House, Calcutta, were requested to prepare consolidated reports to enable the Board to assess the results of the tests.

81.3. Mechanical Research Branch.—During the period under review work relating to compilation and analysis of data collected during experiments on boiler proportions carried out during the previous period was completed and further experimental work on boilers was undertaken to verify certain issues raised as a result of the analysis. Important goods and passenger trains were rated on both level and graded sections of three broad gauge railways and brief Capacity Rating tests were carried out to determine working capabilities of CWD, AWE and GSM (Bengal Nagpur Railway) Engines. One railway availed itself of the services of the dynamometer car staff in the preparation of data in connection with future locomotive power and traffic requirements which will form the basis of new locomotive designs. The dynamometer car staff was also engaged on the study of mechanical and operational features of American built, 2-8-2 type MAWD class locomotives on one metre gauge railway. Towards the close of the year full scale Rating and Performance trials were commenced on the WL class locomotive.

The Central Standards Office on behalf of Indian Railways continued to be affiliated to the British Cast Iron Research Association. Advice on an additional subject—standardised tests and test equipment for moulding sands—was asked for and received.

Under the direction of the Central Standards Office experimental work on the production of High Duty Iron castings initiated during the previous year continued.

Experimental work on dephosphorisation of Steel Castings, undertaken under the direction of the Central Standards Office was in progress during the period under review.

The following investigations have been carried out in Railway Laboratories on behalf of Board of Scientific and Industrial Research :—

(1) Investigation into the development of Si-Cu Bronzes was still in progress during the period under review.

(2) Investigation into the development of ferrous bearing shells to replace non-ferrous bearings for application to Railway rolling stock. (Completed and Board of Scientific and Industrial Research informed of results.)

An investigation on the burning of vegetable oils in lamps for signalling and other Railway uses, commenced in collaboration with Harcourt Butler Technological Institute, Cawnpore, was completed.

The Central Standards Office was represented on the Metallurgists and Chemists Sub-Committee of the Indian Railways Conference Association.

CHAPTER VII.

STAFF.

82. Number of Staff.—The total number of employees (permanent and temporary) on all Indian Railways and in the office of the Railway Board and other offices subordinate thereto (excluding staff employed on construction) at the end of the year 1944-45 was 962,009 as compared with 884,003 at the end of 1943-44. The total route mileage at the end of the year was 40,509. The following table shows the number of employees by communities on the 31st March 1944 and 1945. A similar statement showing details by railways is given as Appendix C-I, pages 246-247, of Volume II of this Report :—

Date.	Europeans.	INDIANS.										GRAND TOTAL.
		Hindus.		Muslims.	Anglo-Indians and Domiciled Europeans.	Sikhs.	Indian Christians.	Parsis.	Other communities.	TOTAL.		
		Hindus, other than Sheduled Castes.	Scheduled Castes.									
31st March 1944*	1,747	495,312	130,806	208,014	12,286	9,330	22,093	1,589	2,826	882,256		884,003
31st March 1945	**1,634**	**535,668**	**144,659**	**230,429**	**12,284**	**9,725**	**23,388**	**1,613**	**2,609**	**960,375**		**962,009**

NOTE.—These figures exclude staff on loan from the Indian Audit and Accounts Service.

* Revised figures due to changes made by the Railway Administrations in the figures published last year and exclusion of figures for Railway Collieries having been placed under the administrative control of the Department of Supply.

83. Cost of Staff.—The following statement shows the number and cost of all staff, gazetted and non-gazetted, permanent and temporary, open line and construction, employed on Class I Railways during the years 1943-44 and 1944-45. Contractors' labour is not included :—

Railway System.	Year.	NUMBER OF STAFF ON 31ST MARCH.							† COST OF STAFF DURING THE YEAR ENDING 31ST MARCH.				
		OPEN LINE.			CONSTRUCTION.								
		Gazetted Officers.	Non-gazetted employees.	TOTAL.	Gazetted Officers.	Non-gazetted employees.	TOTAL.	Gazetted Officers on loan from the Indian Audit and Accounts Service.	Gazetted Officers.	Non-gazetted employees.	TOTAL.	Total including staff on loan from the Indian Audit and Accounts Service.
1	2	3	4	5	6	7	8	9	10	11	12	13
									Rs.	Rs.	Rs.	Rs.
Bengal & Assam .	1944	208	116,189	116,397	..	..	..	1	35,40,335	5,39,22,968	5,74,63,303	5,74,93,612
	1945	**206**	**146,740**	**146,946**	..	..	..	..	**40,28,790**	**6,68,42,228**	**7,08,71,018**	**7,09,03,804**
Bikaner State .	1944	19	4,564	4,583	..	..	..	..	1,83,017	14,01,380	15,84,397	15,84,397
	1945	**19**	**4,199**	**4,218**	..	..	..	..	**1,91,320**	**14,07,468**	**15,98,788**	**15,98,788**
Bengal Nagpur .	1944	200	86,415	86,615	..	..	..	..	27,75,080	5,28,78,774	5,56,53,854	5,56,53,854
	1945	**194**	**90,503**	**90,697**	..	..	..	..	**26,54,947**	**5,72,29,003**	**5,98,83,950**	**5,98,83,950**
Bombay, Baroda, and Central India	1944	181	75,769	75,950	..	4	4	..	26,50,516	4,99,14,482	5,25,64,998	5,25,64,998
	1945	**186**	**79,085**	**79,271**	..	**2**	**2**	..	**30,66,689**	**5,64,32,381**	**5,94,99,070**	**5,94,99,070**
East Indian .	1944	240	*150,531	*150,771	8	*6,578	*6,586	5	48,31,745	8,36,45,189	8,84,76,934	8,85,78,415
	1945	**244**	**155,977**	**156,221**	**7**	**8,499**	**8,506**	**3**	**58,42,514**	**9,87,48,702**	**10,45,91,216**	**10,47,03,240**
Great Indian Peninsula.	1944	212	124,114	124,326	..	..	..	..	38,49,647	6,74,42,025	7,12,91,672	7,12,91,672
	1945	**216**	**135,194**	**135,410**	..	..	..	..	**41,53,822**	**7,45,30,516**	**7,86,84,338**	**7,86,84,338**

Railway System.	Year.	Number of staff on 31st March.							† Cost of staff during the year ending 31st March.			
		Open line.			Construction.			Gazetted Officers on loan from the Indian Audit and Accounts Service.	Gazetted Officers.	Non-gazetted employees.	Total.	Total including staff on loan from the Indian Audit and Accounts Service.
		Gazetted Officers.	Non-gazetted employees.	Total.	Gazetted Officers.	Non-gazetted employees.	Total.					
1	2	3	4	5	6	7	8	9	10	11	12	13
									Rs.	Rs.	Rs.	Rs.
Jodhpur	1944	32	8,256	8,288	..	..	..	1	4,20,944	37,92,346	42,13,290	42,38,430
	1945	**37**	**8,228**	**8,265**	..	..	..	**1**	**4,11,437**	**40,59,237**	**44,70,674**	**44,92,082**
Madras and Southern Mahratta.	1944	142	57,530	57,672	..	..	..	..	23,80,973	3,42,14,837	3,65,95,810	3,65,95,810
	1945	**155**	**64,496**	**64,651**	..	..	..	..	**25,60,639**	**3,74,43,337**	**4,00,03,976**	**4,00,03,976**
Mysore State	1944	41	7,963	8,004	..	..	..	..	2,31,860	32,98,453	35,30,313	35,30,313
	1945	**42**	**8,289**	**8,331**	..	..	..	..	**2,43,143**	**34,14,331**	**36,57,474**	**36,57,474**
Nizam's State	1944	72	16,044	16,116	1	10	11	..	9,19,129	84,95,884	93,76,013	93,76,013
	1945	**74**	**16,879**	**16,964**	..	**8**	**8**	..	**9,56,952**	**90,64,007**	**1,00,20,959**	**1,00,20,959**
North Western	1944	*246	*120,686	120,932	2	..	2	4	40,64,012	7,55,00,495	7,95,64,507	7,96,43,250
	1945	**256**	**126,353**	**126,609**	**1**	..	**1**	**5**	**44,54,959**	**8,21,99,067**	**8,66,54,026**	**8,67,39,771**
Oudh and Tirhut	1944	96	38,204	38,300	..	..	..	..	11,37,300	1,26,01,826	1,37,39,126	1,37,39,126
	1945	**101**	**40,576**	**40,677**	..	..	..	..	**13,77,158**	**1,56,02,202**	**1,69,79,360**	**1,69,79,360**
South Indian	1944	130	42,788	42,918	..	..	..	..	17,36,669	2,50,85,969	2,68,22,638	2,68,22,638
	1945	**137**	**48,423**	**48,560**	..	..	..	..	**18,94,358**	**2,78,58,837**	**2,97,54,245**	**2,97,54,245**
Railway Clearing Accounts Office	1944	4	2,002	2,006	..	..	..	2	52,242	20,19,410	20,71,652	21,12,791
	1945	**7**	**2,398**	**2,405**	..	..	..	**2**	**97,428**	**24,11,521**	**25,08,949**	**25,45,531**
TOTAL	1944	*1,823	*861,055	*862,878	*11	*6,592	*6,603	13	2,87,73,469	47,41,75,038	50,29,48,507	50,32,25,319
	1945	**1,874**	**927,340**	**929,214**	**8**	**8,509**	**8,517**	**11**	**3,19,34,156**	**53,72,43,887**	**56.91,78,043**	**56,94,66,588**

* Represents revised figures for 1943-44 due to changes made by the Railway Administrations in the figures published last year.

† The figures of cost represent pay, allowances, passages, provident fund contribution and gratuity.

A comparison of the figures for 1944-45 with those for the previous year shows that the total number of staff employed on the open line of Indian Government Railways increased by 66,336 during the year, while the number of construction staff increased by 1,914.

The total cost of staff including that of staff on loan from the Indian Audit and Accounts service increased by Rs. 6,62,41,269 during the year. Increases were recorded both in the numbers and cost of staff on Indian Government Railways. The general increase in numbers was due to employment of additional staff to cope with the increased traffic and the rise in cost was due to the grant of enhanced rates of dearness allowance and revised rates of travelling allowance and to increase in the minimum scales of pay of certain categories of subordinate staff on certain Railways.

84. Indianisation.

84.1. Indian Government Railways—(i) Direct Recruitment.—*Superior Services.*—82 appointments were made to the Superior Railway services by direct recruitment. Details are given below:—

(i) *Direct Recruitment.*

Department.	Vacancies filled by								
	Europeans.	Indians.							
		Hindus.							
		Hindus, other than Scheduled castes.	Scheduled castes.	Muslims.	Anglo-Indians and Domiciled Europeans.	Sikhs.	Indian Christians.	Parsis.	Total.
Engineering	..	21	..	3	..	..	6	1	31
Accounts	..	3	..	2	..	..	1	..	6
Transportation (Traffic and Commercial)	..	17	..	8	..	1	3	..	29
Transportation (Power) and Mechanical Engineering.	..	3	..	1	..	..	..	..	4
Stores	..	10	..	..	..	..	..	1	11
Other Departments	..	1	..	..	..	..	..	..	1
Total	..	55	..	14	..	1	10	2	82

The non-recruitment of Europeans was due to the suspension of recruitment in the United Kingdom for the duration of the War.

The shortage of Muslim recruitment was due to the requisite number of qualified Muslim candidates not being forthcoming for appointment in the Engineering and Stores Departments.

The deficiencies in recruitment of Scheduled Castes and Anglo-Indians were due to the fact that no qualified candidates of these communities were available for appointment to the Superior Railway Services.

The over-all direct Indian recruitment to Superior Railway Services on the Government Railways, taken together, gives percentages as follows:—

		Per cent.
Hindus	Other than Scheduled castes	67·1
	Scheduled castes	..
Muslims		17·1
Anglo-Indians and Domiciled Europeans		..
Sikhs		1·2
Indian Christians		12·2
Parsis		2·4

(ii) *Promotions.*

(*a*) *Superior Services.*—Twenty-five Lower Gazetted Service officers and Subordinates were promoted to the Superior Services during the year; of these five were Europeans, eleven Hindus, three Muslims, five Anglo-Indians or Domiciled Europeans and one belonging to the Parsi Community.

(*b*) *Lower Gazetted Service.*—Twenty-five promotions were made to the Lower Gazetted Service in the various Departments. Of these seven were Europeans and eighteen Indians. Of the latter, nine were Hindus, one Muslim, six Anglo-Indians or Domiciled Europeans and two Indian Christians.

85. Review of the progress made since 1934—The statements on the following pages will throw further light on the progress made in Indianisation and in the recruitment of the various communities on Indian Government Railways since 1934, as reflected in the relative strength of Europeans and Indians belonging to the various communities. Part I relates to superior staff and Part II, to subordinate staff on scales of pay rising to Rs. 250 and over if they are on the old scales of pay, and of subordinates on scale of pay rising to Rs. 200 per mensem and over if they are on the new scales of pay.

PART I.

Statement of gazetted officers (both Superior and Lower Gazetted Service) on Indian Government Railways (permanent and temporary) on the 31st March 1934, 31st March 1944 and 31st March 1945.

31st March 1934.

Name of Railway.	Europeans.	Indians. Hindus. Hindus, other than Scheduled castes.	Indians. Hindus. Scheduled castes.	Indians. Muslims.	Indians. Anglo-Indians and Domiciled Europeans.	Indians. Sikhs.	Indians. Indian Christians.	Indians. Parsis.†	Indians. Other communities.†	Indians. Total.	Total number on the Railway (column 2 plus 11).
1	2	3	4	5	6	7	8	9	10	11	12
Indian Government Railways.											
Bengal & Assam	95	57	..	11	18	3	3	..	1	93	188
Bengal Nagpur	125	42	..	7	14	2	1	..	2	68	193
Bombay, Baroda and Central India	123	32	..	3	2	1	3	..	7	48	171
East Indian	174	78	..	14	34	3	2	..	2	133	307
Great Indian Peninsula	145	35	..	11	9	..	7	..	6	68	213
Madras and Southern Mahratta	96	27	..	..	6	2	3	..	5	43	139
North Western	136	80	..	22	14	10	5	..	..	131	267
Oudh and Tirhut	69	9	..	7	2	..	..	..	..	18	87
South Indian	73	45	..	1	9	..	1	..	..	56	129
Railway Board and miscellaneous Offices.‡	38	10	..	6	6	..	1	..	1	24	62
Collieries (B. N. Railway) ††	..	..	..	..	..	..	..	..	..	..	..
TOTAL	1,074	415	..	82	114	21	26	..	24	682	1,756

31st March 1944.

Name of Railway.	Europeans.	Indians. Hindus. Hindus, other than Scheduled castes.	Indians. Hindus. Scheduled castes.	Indians. Muslims.	Indians. Anglo-Indians and Domiciled Europeans.	Indians. Sikhs.	Indians. Indian Christians.	Indians. Parsis.	Indians. Other communities.	Indians. Total.	Total number on the Railway (column 13 plus 22).
1	13	14	15	16	17	18	19	20	21	22	23
Indian Government Railways.											
Bengal & Assam	70	84	..	15	31	3	3	2	..	138	208
Bengal Nagpur	72	63	..	23	37	4	..	1	..	128	200
Bombay, Baroda and Central India	75	54	..	15	12	1	7	16	1	106	181
East Indian	73	110	..	20	34	5	3	3	..	175	248
Great Indian Peninsula	84	64	..	17	21	2	11	9	1	128	212
Madras and Southern Mahratta	60	53	..	8	6	2	7	6	..	82	142
North Western	73	90	..	44	23	14	2	1	1	175	248
Oudh and Tirhut	43	22	..	15	11	4	1	..	..	53	96
South Indian	38	71	1	9	7	1	3	..	..	92	130
Railway Board and miscellaneous Offices.‡	21	20	..	7	6	2	..	..	..	35	56
Collieries (B. N. Railway) ††	..	..	..	..	..	..	..	..	..	..	..
TOTAL	609	631	1	173	188	38	40	38	3	1,112	1,721

31st March 1945.

Name of Railway.	Europeans.	Indians. Hindus. Hindus, other than Scheduled castes.	Indians. Hindus. Scheduled castes.	Indians. Muslims.	Indians. Anglo-Indians and Domiciled Europeans.	Indians. Sikhs.	Indians. Indian Christians.	Indians. Parsis.	Indians. Other communities.	Indians. Total.	Total number on the Railway (column 24 plus 33).
1	24	25	26	27	28	29	30	31	32	33	34
Indian Government Railways.											
Bengal & Assam	**64**	**92**	..	**16**	**24**	**3**	**5**	**2**	..	**142**	**206**
Bengal Nagpur	**65**	**71**	..	**14**	**39**	**4**	..	**1**	..	**129**	**194**
Bombay, Baroda and Central India	**74**	**58**	..	**20**	**12**	**1**	**5**	**16**	..	**112**	**186**
East Indian	**70**	**114**	..	**20**	**36**	**5**	**3**	**3**	..	**181**	**251**
Great Indian Peninsula	**82**	**66**	..	**17**	**21**	**3**	**16**	**9**	**2**	**134**	**216**
Madras and Southern Mahratta	**60**	**65**	..	**8**	**6**	**2**	**8**	**6**	..	**95**	**155**
North Western	**63**	**98**	..	**48**	**26**	**15**	**5**	**1**	**1**	**194**	**257**
Oudh and Tirhut	**44**	**23**	..	**19**	**10**	**4**	**1**	..	..	**57**	**101**
South Indian	**40**	**72**	**1**	**8**	**8**	**1**	**7**	..	..	**97**	**137**
Railway Board and miscellaneous Offices.‡	**24**	**33**	**1**	**8**	**9**	**3**	**2**	**1**	..	**57**	**81**
Collieries (B. N. Railway) ††	..	..	..	..	..	..	..	..	..	..	.
TOTAL	**586**	**692**	**2**	**178**	**191**	**41**	**52**	**39**	**3**	**1,198**	**1,784**

Statement showing the percentages of the relative strength of Europeans and Indians of various communities.

		§1934.	1944.	**1945.**
Europeans		61·16	35·39	**32·85**
Indians	Hindus — Other than Scheduled caste.	23·63	36·66	**38·79**
	Hindus — Scheduled castes	..	0·06	**0·11**
	Muslims	4·67	10·05	**9·98**
	Anglo-Indians and Domiciled Europeans.	6·49	10·92	**10·71**

		1934.	1944.	**1945.**
Indians—concld.	Sikhs	1·20	2·21	**2·30**
	Indian Christians	1·48	2·32	**2·91**
	Parsis	†	2·21	**2·19**
	Other communities	1·37	0·18	**0·16**
	TOTAL	38·84	64·61	**67·15**

† Parsis included in "other communities" in 1934.

‡ Mining Engineer and Railway Collieries having been placed under the Department of Supply in 1944-45, the figures for 1943-44 have been revised for purposes, of comparison.

†† Figures for 1944-45 having not been available due to the transfer of the administrative control under the Department of Supyly, figures for 1943-44 have also been omitted.

§ Figures for B. N., M. & S. M. and S. I. railways which were company-managed railways in 1934 have been included under Indian Government-Railways for purposes of comparison. Percentages have been altered accordingly for 1934 and 1944.

NOTE.—The staff on loan from the Indian Audit and Accounts Service are not included.

x-61

PART II.

Statement of subordinates on scales of pay rising to Rs. 250 per mensem and over if they are on old scales of pay and of subordinates on scales of pay rising to Rs. 200 per mensem and over if they are on new scales of pay (permanent and temporary) employed on Indian Government Railways on the 31st March 1934, 31st March 1944 and 31st March 1945.

31st March 1934.

Name of Railway	Europeans.	Indians. Hindus. Hindus other than Scheduled castes.	Indians. Hindus. Scheduled castes.	Indians. Muslims.	Indians. Anglo-Indians and Domiciled Europeans.	Indians. Sikhs.	Indians. Indian Christians.	Indians. Parsis. †	Indians. Other communities.†	Indians. Total.	Total number on the Railway (column 2 plus 11).
1	2	3	4	5	6	7	8	9	10	11	12
Indian Government Railways.											
Bengal & Assam	80	176	..	13	207	6	4	..	6	412	492
Bengal Nagpur	181	201	..	19	395	16	12	..	6	649	830
Bombay, Baroda and Central India	139	300	..	35	317	4	42	..	119	817	956
East Indian	477	458	..	53	921	17	7	..	5	1,461	1,938
Great Indian Peninsula . .	252	225	..	35	614	10	100	..	77	1,061	1,313
Madras and Southern Mahratta .	68	51	..	..	184	..	4	..	6	245	313
North Western	333	337	..	181	352	92	23	..	33	1,018	1,351
Oudh and Tirhut . . .	23	22	..	10	68	1	1	..	..	102	125
South Indian	39	90	..	6	159	..	10	..	1	266	305
Railway Board and miscellaneous offices.‡	1	134	..	27	24	12	5	..	2	204	205
Collieries (B. N. Railway)†† .	..	..	..	..	..	..	..	..	..	..	..
TOTAL .	1,593	1,994	..	379	3,241	158	208	..	255	6,235	7,828

31st March 1944.

Name of Railway	Europeans.	Indians. Hindus. Hindus other than Scheduled castes.	Indians. Hindus. Scheduled castes.	Indians. Muslims.	Indians. Anglo-Indians and Domiciled Europeans.	Indians. Sikhs.	Indians. Indian Christians.	Indians. Parsis.	Indians. Other communities.	Indians. Total.	Total number on the Railway (column 13 plus 22).
1	13	14	15	16	17	18	19	20	21	22	23
Indian Government Railways.											
Bengal & Assam	55	521	2	68	224	5	12	..	5	837	892
Bengal Nagpur	40	341	1	36	521	26	17	3	3	948	988
Bombay, Baroda and Central India	113	422	3	50	248	8	46	95	38	910	1,023
East Indian	203	*766	3	100	*902	14	7	4	6	*1,802	*2,005
Great Indian Peninsula . .	105	439	5	119	589	28	116	83	45	1,424	1,529
Madras and Southern Mahratta .	35	82	..	2	147	1	7	6	..	245	280
North Western	158	406	1	263	259	87	15	12	7	1,050	1,208
Oudh and Tirhut . . .	15	40	1	14	71	..	1	..	1	128	143
South Indian	11	109	..	6	104	..	25	..	..	244	255
Railway Board and miscellaneous offices.‡	1	182	1	53	10	16	6	..	..	268	269
Collieries (B. N. Railway)†† .	..	..	..	..	..	..	..	..	..	..	..
TOTAL .	736	*3,308	17	711	*3,075	185	252	203	105	*7,856	*8,592

31st March 1945.

Name of Railway	Europeans.	Indians. Hindus. Hindus other than Scheduled castes.	Indians. Hindus. Scheduled castes.	Indians. Muslims.	Indians. Anglo-Indians and Domiciled Europeans.	Indians. Sikhs.	Indians. Indian Christians.	Indians. Parsis.	Indians. Other communities.	Indians. Total.	Total number on the Railway (column 24 plus 33).
1	24	25	26	27	28	29	30	31	32	33	34
Indian Government Railways.											
Bengal & Assam	55	591	2	83	241	12	10	..	6	945	1,000
Bengal Nagpur	35	359	1	40	552	28	17	2	2	1,001	1,036
Bombay, Baroda and Central India	110	461	3	51	259	9	54	98	40	975	1,085
East Indian	211	825	3	108	879	19	12	4	6	1,856	2,067
Great Indian Peninsula . .	100	416	4	120	589	14	110	88	40	1,381	1,481
Madras and Southern Mahratta .	32	99	..	2	147	1	8	6	..	263	295
North Western	148	480	..	290	248	108	15	11	5	1,157	1,305
Oudh and Tirhut . . .	13	55	2	19	74	1	1	..	1	153	166
South Indian	8	114	..	6	104	..	29	..	..	253	261
Railway Board and miscellaneous offices.‡	1	210	2	70	10	14	6	..	..	312	313
Collieries (B. N. Railway)†† .	..	..	..	..	..	..	..	..	..	..	..
TOTAL .	713	3,610	17	789	3,103	206	262	209	100	8,296	9,009

Statement showing the percentages of the relative strength of Europeans and Indian of various communities.

		1934.§	1944.	1945.
Europeans . .	. . . .	20·35	8·57	7·91
Indians	Hindus — Other than Scheduled castes.	25·47	38·50	40·07
	Hindus — Scheduled castes .	..	0·20	0·19
	Muslims	4·84	8·28	8·76
	Anglo-Indians and Domiciled Europeans.	41·40	35·79	34·44
Indians—*concld.* .	Sikhs	2·02	2·15	2·29
	Indian Christians . . .	2·66	2·93	2·91
	Parsis	†	2·36	2·32
	Other communities . . .	3·26	1·22	1·11
	Total .	79·65	91·43	92·09

*Revised figures. † Parsis included in "other communities" in 1934.
§ Figures for B. N., M. & S. M. and S. I. railways which were company-managed railways in 1934 have been included under Indian Government Railways for purposes of comparison. Percentages have been altered accordingly for 1934 and 1944
‡ Mining Engineer and railway collieries having been placed under the Department of Supply in 1944-45, the figures for 1943-44 have been revised for purposes of comparison.
†† Figures for 1944-45 having not been available due to the transfer of the administrative control under the Department of Supply, figures for 1943-44 have also been omitted.

It will be observed that the Indian element in the superior services has risen from 38·84 per cent. in 1934 to 67·15 per cent. in 1945. Among Indians the percentages by communities in the years 1934 and 1945 were as shown below:—

Communities.	Indian Govt. managed railways. Percentages. 1934.†	Indian Govt. managed railways. Percentages. 1945.
Hindus { Other than Scheduled Castes	23·63	38·79
Hindus { Scheduled Castes	..	0·11
Muslims	4·67	9·98
Anglo-Indians and Domiciled Europeans	6·49	10·71
Sikhs	1·20	2·30
Indian Christians	1·48	2·91
Parsis	*	2·19
Other communities	1·37	0·16

* Parsis were included in "Other communities" in 1934.

† Revised due to the transfer of management of Bengal Nagpur, Madras and Southern Mahratta and South Indian Railways to the Indian Government.

Turning to the subordinate staff on scales of pay rising to Rs. 250 per mensem and over in the old scales of pay and to Rs. 200 per mensem and over in the new scales of pay, the corresponding figures are as under :—

Communities.	Indian Govt. managed railways. Percentages. 1934.†	Indian Govt. managed railways. Percentages. 1945.
Europeans	20·35	7·91
Indians—		
Hindus { Other than Scheduled Castes	25·47	40·07
Hindus { Scheduled Castes	..	0·19
Muslims	4·84	8·76
Anglo-Indians and Domiciled Europeans	41·40	34·44
Sikhs	2·02	2·29
Indian Christians	2·66	2·91
Parsis	*	2·32
Other communities	3·26	1·11
Total Indians	79·65	92·09

* Parsis were included in "Other communities" in 1934.

† Revised due to the transfer of management of Bengal Nagpur, Madras and Southern Mahratta and South Indian Railways to the Indian Government.

86. Representation of minority communities in subordinate railway services.—The figures given in Appendix C. V(*b*), pages 269-270, of Volume II of this Report show by communities, the number and percentage of subordinate staff (excluding inferior servants and labourers), recruited to both permanent and temporary posts on Indian Government

Railways during the year 1944-45. The following figures show the over-all percentages on Indian Government Railways during the ten years ending with 1944-45 :—

—	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	**1944-45.**
(i) Combined percentage figures of permanent and temporary recruitment.										
Europeans	0·19	0·2	0·1	0·1	0·2	0·1	0·1	0·1	0·0	**0·0**
Hindus—Other than Scheduled Castes.	57·09	54·1	55·0	56·0	57·5	56·9	62·1	66·0	66·4	67·8
Scheduled Castes	*	*	*	*	*	*	*	*	0·9	2·2
Muslims	28·50	31·2	29·9	29·9	29·2	28·8	27·5	24·7	24·9	22·7
Anglo-Indians and Domiciled Europeans.	8·33	8·7	9·2	7·6	7·5	6·9	3·9	3·5	2·8	**2·3**
Sikhs	1·70	2·1	2·3	2·2	2·1	2·2	2·2	2·1	1·6	**1·8**
Indian Christians	3·49 }5·51	3·1 }5·5	2·8 }5·6	3·4 }6·1	3·0 }5·4	4·3 }7·1	3·5 }6·2	3·0 }5·5	2·9 }4·8	**2·7 }4·8**
Parsis	0·32	0·3	0·5	0·5	0·3	0·6	0·5	0·4	0·3	**0·3**
Other communities	0·38	0·3	0·2	0·3	0·2	0·2	0·2	0·2	0·2	**0·2**
(ii) Percentage figures of permanent recruitment.										
Europeans	..	0·5	0·4	0·3	0·2	0·1	0·1	0·1	0·0	**0·0**
Hindus—Other than Scheduled Castes.	..	55·6	56·0	54·4	58·0	58·7	65·0	68·6	59·2	**69·5**
Scheduled Castes	..	*	*	*	*	*	*	*	1·4	**2·8**
Muslims	..	26·4	26·5	27·1	24·8	23·3	21·5	19·3	25·7	**17·7**
Anglo-Indians and Domiciled Europeans	..	10·7	10·9	10·3	9·5	9·6	5·7	5·3	6·8	**4·4**
Sikhs	..	1·2	1·8	2·2	1·8	1·3	1·2	1·3	1·1	**1·0**
Indian Christians	..	4·5 }6·2	3·6 }6·0	4·2 }7·3	4·5 }7·1	5·6 }7·9	5·2 }7·4	4·2 }6·3	4·4 }6·2	**3·5 }4·7**
Parsis	..	0·5	0·6	0·9	0·8	1·0	1·0	0·8	0·7	**0·2**
Other communities.	..	0·6	0·2	0·6	0·4	0·4	0·3	0·4	0·7	**0·2**
(iii) Percentage figures of temporary recruitment.										
Europeans	..	..	0·1	..	0·2	0·1	0·1	0·1	0·0	**0·0**
Hindus—Other than Scheduled Castes.	..	53·0	54·4	56·9	57·0	55·8	60·8	65·4	67·0	**67·7**
Scheduled Castes	..	*	*	*	*	*	*	*	0.9	**2·1**
Muslims	..	34·6	31·8	31·4	31·9	31·9	30·0	26·0	24·8	**23·1**
Anglo-Indians and Domiciled Europeans.	..	7·4	8·3	6·1	6·3	5·4	3·2	3·0	2·4	**2·1**
Sikhs	..	2·8	2·5	2·2	2·4	2·7	2·6	2·2	1·6	**1·9**
Indian Christians	..	2·1 }5·0	2·4 }5·3	3·0 }5·5	2·0 }4·5	3·5 }6·6	2·8 }5·7	2·8 }5·3	2·8 }4·7	**2·7 }4·9**
Parsis	..	0·1	0·4	0·3	0·1	0·4	0·3	0·3	0·3	**0·3**
Other communities.	..	..	0·1	0·1	0·1	0·2	0·2	0·2	0·2	**0·1**

* Included along with 'Hindus other than Scheduled castes'.

NOTE.—Separate figures for permanent and temporary recruitment are not available for 1935-36.

From the figures given above it will be noticed that during the year under review, members of the Muslim, Anglo-Indian and Domiciled European and Scheduled caste communities failed to obtain their prescribed percentages of permanent and temporary posts. In all these cases, the shortage in recruitment of these minority communities was due to the poor response received to advertised vacancies, attributable to candidates belonging to these communities having been attracted to various kinds of war services.

87. North Western Railway Service Commission.—The Subordinate Service Commission continued to function satisfactorily during the year under review and has been redesignated North Western Railway Service Commission. A post of Secretary to the Commission was created in place of that of the Superintendent, which was abolished with effect from the 15th July 1944. The life of the Commission which is on an experimental basis was extended for a further period of two years up to 13th July 1946. The Railway Board have now considered the future of this organization and in view of its successful working are considering making it permanent and the desirability of setting up similar Commissions on other Railways or groups of Railways.

88. Anti-corruption Organisation.—The drive against bribery and corruption on Railways was continued during the year under report with a considerable measure of success. The Special Railway Staff continued to assist the Special Police Establishment in detecting cases which were investigated and sent up for trial in Courts or before the Tribunals. During the year under review 113 cases were taken up by the Special Staff, 83 of which were sent up for trial in Courts or before Tribunals resulting in the conviction of 55 persons. This brings up the total numbers of cases so far taken up to 302 and the number of persons convicted to 142. Analysis has shown that corruption takes place mostly in the allotment of wagons, despatching of restricted goods, reservation of berths, etc. There were cases of delay in deciding cases by Courts and the Special Tribunals but, as a result of the formation of two more Special Tribunals during the last year, some improvement has been achieved. In order to keep the public and the general body of railway servants informed of the measures taken and progress made, press notes were issued periodically giving the number of convictions obtained. In addition to the above, individual railways continued to take suitable steps to eradicate this evil.

89. Organised Labour—All-India Railwaymen's Federation.—During the period under review, two meetings were held between the Railway Board and the All-India Railwaymen's Federation, *viz.*, the twenty-third half-yearly meeting which was held on the 19th September 1944 and a special meeting which was held on the 24th February 1945. The following subjects were discussed at the meeting held on the 19th September 1944. (*a*) Dearness Allowance and Grain Shops, (*b*) The Railway Board's war-time policy regarding scales of pay; and (*c*) Grievances of temporary staff. The subject of Dearness Allowance to railway staff was again discussed at the special meeting held on the 24th February 1945. In addition to the meetings mentioned above, there was also an informal meeting between the President of the Federation and the Chief Commissioner of Railways on 22nd August 1944 at the request of former.

Mr. Jamnadas M. Mehta, who had been continuously guiding the activities of the Federation for 7 years, resigned the Presidentship of the Federation with effect from the 28th November 1944. He was succeeded by Mr. S. C. Joshi for a short time before Mr. V. V. Giri was elected as President of the Federation.

90. Grain and Grocery shops.—During the year under review, the grain shops on Railways referred to in paragraph 81 of the last year's Report, continued to perform the useful purpose for which they had been introduced. For the benefit of staff a number of new shops were opened on all railways. There was also an expansion of the extent of the relief afforded in that, the selling prices of commodities sold from the grain shops were reduced by another 10 per cent., with effect from the 1st October 1944, thereby bringing the prices roughly to the level of those which obtained in the Spring of 1942. The benefit was also extended to a larger number of dependent. The range of commodities dealt with in the grain shops was increased from 18 to 20 by the addition of Chappals for low paid employees and woollen goods.

At the close of the year the number of railway grain shops had risen to 729 (557 static and 172 mobile shops); the number of ration card holders at the end of March 1945 stood at 869,000. Foodstuffs to the extent of 14,512,000 maunds were sold by the shops during the year, with an average of 1,209,000 maunds per month or 1·43 maunds per month per ration card holder. The value of sales during the year totalled about Rs. 15 crores, rising from Rs. 1·0 crore in April 1944 to Rs. 1·7 crore in March 1945, giving an average sale of about Rs. 1·2 crore per month or Rs. 14·4 per ration card holder per month. The cost of all the commodities sold during the year amounted to

about Rs. 24·0 crores, while the cash realised by sales to employees at concessional prices was Rs. 15·0 crores, so that the loss incurred by affording relief in kind to the staff was approximately Rs. 9·0 crores. The relief afforded to staff measured in terms of the difference between the railway selling prices and the local market prices during the year was Rs. 10·1 crores with an average relief per ration card holder per month of Rs. 10·0, the lowest figure being Rs. 7·1 in April 1944 and the highest Rs. 12·6 in March 1945. The grain shop facilities helped greatly in stabilising the railwayman's cost of living and relieved him from the constant anxiety of not being able to cope with the high market prices of foodstuffs. The *per capita* basis of distribution enabled every railway employee to obtain relief in proportion to his actual needs.

It was stated in the concluding portion of paragraph 81 of last year's Report that during the close of that year the question of opening cost price grocery shops on Railways, to provide for the more varied necessaries of life for higher paid railwaymen, was taken under consideration. The arrangements for opening such grocery shops were completed in July 1944 and in the course of the remaining months of the year 30 grocery shops were opened at important centres on Railways. These shops supplied consumer goods such as provisions, medical products, toilet requisites, stationery, haberdashery, cleaning materials, etc., at reasonable prices. The procurement arrangements provided for the exploitation of indigenous manufacturing sources to the greatest possible extent, imports being restricted only to those necessaries which were either not manufactured in the country or of which sufficient supplies could not be obtained.

91. Dearness Allowance.—The last year's Report gave the scales of the Dearness Allowance as they stood at the close of the year 1943-44. Owing to a further rise in the cost of living the rates of the allowance were twice increased during the period under review, once from 1st July 1944 and again from 1st January 1945. Moreover the scope of Dearness Allowance was considerably extended and made applicable to gazetted staff as well. The rates of the allowance after the first revision in July 1944 were :—

Gazetted officers including members of the Defence of India units.	Allowance.
(1) Married Gazetted officers on pay up to Rs. 1,000 per mensem.	10 per cent. of pay subject to a minimum of Rs. 50 per mensem with marginal adjustment up to Rs. 1,100.
(2) Single Gazetted officers on pay up to Rs. 750 per mensem.	5 per cent. of pay subject to a minimum of Rs. 30 per mensem with marginal adjustment up to Rs. 788.

Whole-time Non-gazetted servants.	Allowance.	
	For Non-Defence of India personnel.	For Defence of India personnel.
(1) 'X' Bombay, Calcutta and Cawnpore and such of their suburbs as have been included therein.	10 per cent. of pay subject to a minimum of— Rs. 18.(*a*) Rs. 16.(*b*)	10 per cent. of pay subject to a minimum of Rs. 10-8 per mensem.
(2) 'A'-Area other than area-X within the municipal limits of a city having a population of not less than 250,000 inhabitants according to the census of 1941, or an area specially so declared by the Governor General in Council.	10 per cent. of pay subject to a minimum of— Rs. 18.(*a*) Rs. 14.(*b*)	10 per cent. of pay subject to a minimum of Rs. 10-8 per mensem.

Whole-time Non-gazetted servants.	Allowance. For Non-Defence of India personnel.	Allowance. For Defence of India personnel.
(3) 'B'-Area within the municipal limits of a town having a population of 50,000 or more but less than 250,000 inhabitants according to the census of 1941 or an area specially so declared by the Governor General in Council.	10 per cent. of pay subject to a minimum of— Rs. 14.(*a*) Rs. 11.(*b*)	10 per cent. of pay subject to a minimum of Rs. 8-12 per mensem.
(4) 'C'-Area not included in (1) to (3) above.	10 per cent. of pay subject to a minimum of— Rs. 12.(*a*) Rs. 9.(*b*)	10 per cent. of pay subject to a minimum of Rs. 7 per mensem.

N.B.—(*a*) Stands for persons drawing Rs. 40 and above.

(*b*) Stands for persons drawing below Rs. 40.

The rates after the second revision, which had effect from 1st January 1945, were :—

Gazetted officers including members of the Defence of India units.	Allowance.
(1) Married Gazetted officers on pay up to Rs. 1,500 per mensem.	$17\frac{1}{2}$ per cent. of pay subject to a minimum of Rs. 50 per mensem.
(2) Married Gazetted officers on pay of more than Rs. 1,500 per mensem but not more than Rs. 2,000 per mensem.	Rs. 263 per mensem with marginal adjustment up to Rs. 2,263 per mensem.
(3) Single Gazetted officers on pay up to Rs. 1,000 per mensem.	$7\frac{1}{2}$ per cent. of pay subject to a minimum of Rs. 30 per mensem with marginal adjustment up to Rs. 1,075 per mensem.

Whole-time Non-gazetted servants.	Allowance. For Non-Defence of India personnel.	Allowance. For Defence of India personnel.
(1) 'X'-Areas as in (X) above . .	$17\frac{1}{2}$ per cent. of pay subject to a minimum of— Rs. 20.(*a*) Rs. 19.(*b*)	10 per cent. of pay subject to a minimum of Rs. 12 per mensem.
(2) 'A'-Areas as in (A) above .	$17\frac{1}{2}$ per cent. of pay subject to a minimum of— Rs. 19.(*a*) Rs. 17.(*b*)	10 per cent. of pay subject to a minimum of Rs. 12 per mensem.
(3) 'B'-Areas as in (B) above . .	$17\frac{1}{2}$ per cent. of pay subject to a minimum of— Rs. 16.(*a*) Rs. 14.(*b*)	10 per cent. of pay subject to a minimum of Rs. 10-8 per mensem.
(4) 'C'-Areas as in (C) above . .	$17\frac{1}{2}$ per cent. of pay subject to a minimum of— Rs. 14.(*a*) Rs. 12.(*b*)	10 per cent. of pay subject to a minimum of Rs. 9 per mensem.

N.B.—(*a*) Stands for persons drawing Rs. 40 and above.

(*b*) Stands for persons drawing below Rs. 40.

92. Defence of India Corps (Railways).—It was reported last year that the Defence of India scheme continued to remain in force, but that in view of the improved military situation, further recruitment to the Corps, except against wastage, was stopped with effect from 1st May 1943. The Bengal and Assam Railway were, however, allowed to enrol some more staff who had been recruited for the Railway to meet urgent demands.

During the year under review the Defence of India Corps personnel in certain sections of the Bengal and Assam Railway had to work under more exacting conditions as these areas became part of a Field Service area. Defence of India staff in these areas were therefore allowed to draw either their Railway pay and allowances or the Military pay and allowances corresponding to their rank, whichever was more advantageous.

93. Railway Staff and the War.—In paragraph 84 of the last year's Report it was stated that, due to an increase in traffic on railways, it was necessary to ask for the release of Railway staff, both officers and men, previously lent to the War and other Departments. Owing to the general intensification of the war effort, the release of these men, which had been progressing satisfactorily during the latter half of 1944, came to a standstill towards the end of the period under review. This, coupled with the increased demands placed on railways for the transport of men and munitions to the Eastern Frontier, taxed their resources to the utmost. However, by the loyal co-operation of staff of all ranks, the Railways were able to meet the situation with satisfactory results.

The production of Munitions continued to be undertaken in Railway workshops during the period under review, the number of Railway staff solely engaged on this work on 31st March 1945 remaining the same as on the same date last year, *i.e.*, 18,000. The scheme for the training of staff for Railway Military Units continued to function, though with less intensity, since the War Department decided to close down some of the training centres. About 38,000 men had, however, completed their training up to the end of March 1945. The scheme for training technical staff on behalf of the Labour Department also continued during the period under review, though to a lesser extent, the number of men under training in March 1945 being 2,446. The total number of men who had completed their training up to the end of the year was 14,383.

94. Introduction of weekly rest for Gangmen.—When the Washington and Geneva Conventions were implemented by the amendment of the Indian Railways Act and the Railway Servants Hours of Employment Rules made thereunder, permanent way staff were given the periodic rest on a scale less than that laid down for other continuous workers, that is permanent way staff were given " in every calendar month at least one period of rest of not less than 48 consecutive hours or two periods of rest of not less than 24 consecutive hours each ". This action was then taken in view of the difficulty of regulating the hours of employment of men widely dispersed and because, in some cases, infrequent periods of rest exceeding 24 consecutive hours were given to such staff in order to allow them to visit their homes. Some Railways, however, already gave their permanent way staff the weekly rest day and on investigation the Railway Board accepted the principle of a calendar day's rest once a week and it was also decided to allow such staff accumulation of weekly rest so that the facility previously enjoyed by them for visiting their home should be continued. Following this decision the rule was amended as follows :—

> " Such Railway servants shall enjoy in each week commencing on Sunday a calendar day's rest or at the discretion of the Railway Administration, an equivalent number of consecutive days up to a limit of three."

As Railway administrations were experiencing considerable difficulty in keeping permanent way gangs up to strength it was considered that it might not be possible for them to give effect to this decision contained in Rule 6A above immediately and that if that was the case in regard to any particular section or sections of a Railway, the General Manager of the Railway was asked to make a report to the Board. These instructions were issued during the close of the period under review with a view to implementing them fully as soon as circumstances would permit.

CHAPTER VIII.

AMENITIES FOR PASSENGERS.

95. Due to the continued intensive war effort on the part of the Railways, no regular programme of providing additional amenities for passengers during the year under review could be undertaken; but some of the improvements as referred to below were, nevertheless, carried out.

96. Introduction of new types of third class carriages.—The building programmes had to be heavily curtailed owing to lack of materials and only 26 new third class bogie carriages conforming to the approved standard were constructed and placed on service during the year under review.

97. Measures taken to ensure security for women passengers.—The safety of women passengers continued to receive the close attention of Railways, and further progress in the execution of the steps for the safety of women passengers was made on the lines outlined in last year's Report, *viz.*, in the direction of provision of safety catches on doors and windows of the intermediate and third class compartments for ladies as stock passed through shops, and location of third class compartments for ladies as near as possible to the Guard's van.

98. Booking offices and out-agencies.—On the North Western Railway two branch booking offices were opened exclusively for the use of military personnel, one in General Headquarters, New Delhi and the other in the Area Headquarters at Ferozepore Cantonment. On the Bombay, Baroda and Central India Railway one extra booking window was provided for exchanging military warrants at Bombay Central, Baroda and Ahmedabad and extra counters were also provided for this purpose at several stations on its metre gauge.

On the Oudh and Tirhut Railway, Almora out-agency served by Kathgodam was opened during the year for goods and parcels traffic in addition to the existing out-agencies at Nainital, Ranikhet and Bhowali which serve the important markets in the Kumaon Hills. The method of transport is by means of motor vehicles.

99. Waiting rooms and waiting halls.—Among the new waiting rooms opened during the year mention may be made of the waiting rooms provided at Ondal (East Indian Railway) and Sirpur Khagaznagar (His Exalted Highness The Nizam's State Railway). At the former station one waiting room for first and second class gentlemen, another for the intermediate class gentlemen and a third for the combined use of first, second and intermediate class lady passengers were provided in place of one each for the first and second class gentlemen and ladies; while the waiting room provided at the latter station is meant for the upper class passengers. Further, on the Madras and Southern Mahratta Railway, owing to the removal of upper class carriages on certain branch lines, the waiting rooms have been permitted to be used by intermediate class passengers. The policy of making the station precincts more comfortable and hygienic and improving water supply arrangements, etc., of which mention was made in the last Report, continued to receive the attention of all railways.

100. Catering.—Catering arrangements continued during the year under review, to be subject to difficulties due to war conditions such as the scarcity of and general rise in prices of foodstuffs, provincial and other restrictions on the free movement of food articles, and the requirements of food ration orders of Provincial Governments at various places. In spite of these handicaps, however, pace was kept with the demands of the greatly increased numbers of passengers, and as satisfactory a service rendered as was generally possible in existing conditions.

Strict supervision of foodstuffs supplied to passengers in refreshment rooms, dining cars, and at stalls was maintained through frequent inspections by Traffic and Medical officers of Railways. The Oudh and Tirhut Railway agreed to the extension of the Bihar Food Adulteration Act to the eatables sold at railway stations in Bihar in order to secure a higher standard of quality than would otherwise have been possible with the prevailing high prices of material and labour.

About a dozen new food-stalls were opened at different stations. On the Madras and Southern Mahratta Railway " a catering courier service " was put into operation to help upper class passengers in obtaining their requirements for meals on certain busy trains; under this system, a courier travels on the train, his duty being to furnish passengers with information as to the stations at which meals are obtainable, to ascertain their requirements in this respect, to assist in the sending of messages ordering meals, and to assist passengers generally at meal stations. The Bikaner State Railway further extended their catering service of serving vegetarian meals in trains.

Free canteens for troops opened by public-spirited bodies or individuals continued to function at certain stations on the different railways, and a few additional ones were also opened during the year.

101. Steps taken to make available maximum passenger accommodation in running trains.—The phenomenal upsurge in passenger travel which took place during the year 1943-44 became even more pronounced during the year under review. It was not practicable for Railways to arrange for any effective increase in the number of passenger trains owing to the heavy demands on rail transport for the Armed Forces, the impossibility of construction of new coaching stock during the war owing to short supplies of timber and other material, and to the serious coal situation. But every possible effort was made to minimise the consequent discomforts to the travelling public by the adoption of measures such as the strengthening of passenger train services by extra carriages as far as available and within the permissible hauling capacity of the engines, intensive use of all available coaching stock and the reconditioning of obsolete vehicles, running of separate trains and reservation of separate carriages for the military personnel, and vigorous efforts to prevent ticketless travellers taking up accommodation in trains.

102. Cleanliness of Coaching Stock.—The question of the cleanliness of coaching stock, both military and civil, received constant attention. Railways were addressed in September 1944 to intensify their drive towards cleanliness and take immediate steps to restore coaching stock to, at least, its pre-war standard of cleanliness.

A special meeting of the Railways' representatives was held in January 1945 to decide the best practicable steps to improve cleanliness of stock. The subject has been pursued vigorously since then with a view to implementing all the recommendations made at the meeting and the Railway Board are receiving monthly progress reports of the measures taken towards completion of the various schemes.

Periodical reports from Railways indicate that steady progress is being made in the drive for cleanliness. Large numbers of additional cleaners have been appointed as also a number of additional supervisors. New overhead watering arrangements have been installed at certain stations and additional washing lines have been provided. Disinfection is carried out with the best insecticides and disinfestants available. D.D.T. is also being tried. Since the inception of the drive for cleanliness each complaint in this connection is investigated in detail with a view to eliminating the conditions which lead to such complaints.

APPENDIX A.

Resolution regarding the separation of Railway from General Finances, adopted by the Legislative Assembly on the 20th September 1924 and Convention Resolution of 1943.

" This Assembly recommends to the Governor General in Council that in order to relieve the general budget from the violent fluctuations caused by the incorporation therein of the railway estimates and to enable railways to carry out a continuous railway policy based on the necessity of making a definite return to general revenues on the money expended by the State on Railways.

(1) The railway finances shall be separated from the general finances of the country and the general revenues shall receive a definite annual contribution from railways which shall be the first charge on the net receipts of railways.

(2) The contribution shall be based on the capital at charge and working results of commercial lines, and shall be a sum equal to one per cent. on the capital at charge of commercial lines (excluding capital contributed by companies and Indian States) at the end of the penultimate financial year *plus* one-fifth of any surplus profits remaining after payment of this fixed return, subject to the condition that, if in any year railway revenues are insufficient to provide the percentage of one per cent. on the capital at charge surplus profits in the next or subsequent years will not be deemed to have accrued for purposes of division until such deficiency has been made good.

The interest on the capital at charge of, and the loss in working, strategic lines shall be borne by general revenues and shall consequently be deducted from the contribution so calculated in order to arrive at the net amount payable from railway to general revenues each year.

(3) Any surplus remaining after this payment to general revenues shall be transferred to a railway reserve; provided that if the amount available for transfer to the railway reserve exceeds in any year three crores of rupees only two-thirds of the excess over three crores shall be transferred to the railway reserve and the remaining one-third shall accrue to general revenues.

(4) The railway reserve shall be used to secure the payment of the annual contribution to general revenues; to provide; if necessary, for arrears of depreciation and for writing down and writing off capital; and to strengthen the financial position of railways in order that the services rendered to the public may be improved and rates may be reduced.

(5) The railway administration shall be entitled, subject to such conditions as may be prescribed by the Government of India, to borrow temporarily from the capital or from the reserves for the purpose of meeting expenditure for which there is no provision or insufficient provision in the revenue budget subject to the obligation to make repayment of such borrowings out of the revenue budgets of subsequent years.

(6) A Standing Finance Committee for Railways shall be constituted consisting of one nominated official member of the Legislative Assembly who should be chairman and eleven members elected by the Legislative Assembly from their body. The members of the Standing Finance Committee for Railways shall be *ex-officio* members of the Central Advisory Council, which shall consist, in addition, of not more than one further nominated official member, six non-official members selected from a panel of eight elected by the Council of State from their body and six non-official members selected from a panel of eight elected by the Legislative Assembly from their body.

The Railway Department shall place the estimate of railway expenditure before the Standing Finance Committee for Railways on some date prior to the date for the discussion of the demand for grants for railways and shall, as far as possible, instead of the expenditure programme revenue show the expenditure under a depreciation fund created as per the new rules for charge to capital and revenue.

(7) The railway budget shall be presented to the Legislative Assembly if possible in advance of the general budget and separate days shall be allotted for its discussion, and the Member in charge of Railways shall then make a general statement on railway accounts and working. The expenditure proposed in the railway budget, including expenditure from the depreciation fund and

the railway reserve, shall be placed before the Legislative Assembly in the form of demands for grants. The form the budget shall take after separation, the detail it shall give and the number of demands for grants into which the total vote shall be divided shall be considered by the Railway Board in consultation with the proposed Standing Finance Committee for Railways with a view to the introduction of improvements in time for the next budget, if possible.

(8) These arrangements shall be subjected to periodic revision but shall be provisionally tried for at least three years.

(9) In view of the fact that the Assembly adheres to the resolution passed in February 1923, in favour of State management of Indian Railways, these arrangements shall hold good only so long as the East Indian Railway and the Great Indian Peninsula Railway and existing State-managed railways remain under State management. But if in spite of the Assembly's resolution above referred to Government should enter on any negotiations for the transfer of any of the above railways to Company management such negotiations shall not be concluded until facilities have been given for a discussion of the whole matter in the Assembly. If any contract for the transfer of any of the above railway to Company management is concluded against the advice of the Assembly, the Assembly will be at liberty to terminate the arrangements in this Resolution.

Apart from the above convention this Assembly further recommends—

(i) that the railway services should be rapidly Indianised, and further that Indians should be appointed as Members of the Railway Board as early as possible, and

(ii) that the purchases of stores for the State Railways should be undertaken through the organisation of the Stores Purchase Department of the Government of India."

Convention Resolution of 1943.

The Legislative Assembly on 2nd March 1943 passed the following resolution:—

" Whereas it has been found that the Convention, which was adopted under the Assembly Resolution, dated 20th September, 1924, and which was intended to relieve the General Budget from violent fluctuations caused by the incorporation therein of the railway estimates and to enable railways to carry on a continuous railway policy based on the necessity of making a definite return to general revenues on the money expended by the State, has not achieved these objects, this Assembly recommends to the Governor General in Council, that:

(i) for the year 1942-43, a sum of Rs. 2,35,32 thousand shall be paid to general revenues over and above the current and arrear contribution due under the Convention,

(ii) from the 1st April, 1943, so much of the Convention as provides for the contribution and allocation of surpluses to general revenues shall cease to be in force,

(iii) for the year 1943-44, the surplus on commercial lines shall be utilised to repay any outstanding loan from the depreciation fund and thereafter be divided 25 per cent. to the railway reserve and 75 per cent. to general revenues, the loss, if any, on strategic lines being recovered from General Revenues, and

(iv) for subsequent years and until a new convention is adopted by the Assembly, the allocation of the surplus on commercial lines between the railway reserve and general revenues shall be decided each year on consideration of the needs of the railways and general revenues, the loss, if any, on strategic lines being recovered from general revenues."

APPENDIX B.

Officers of the Railway Department (Railway Board) and attached offices on the 31st March, 1945.

The Honourable Sir Edward Benthal, Member of Council of the Governor General.

Railway Board.

Sir Arthur Griffin, O.B.E.	Chief Commissioner of Railways.
Mr. Zahid Hussain, C.I.E.	Financial Commissioner of Railways.
Col. H. W. Wagstaff, C.S.I., M.C.	Member.
Sir Lakshmipati Misra	Member.
Mr. S. E. L. West, C.I.E., O.B.E., V.D.	Member.
Mr. D. Colin Campbell	Director, Accounts.
Mr. I. S. Puri	Director, Finance.
Khan Bahadur M. D. Sheik	Director, Establishment.
Mr. W. S. Benton	Director, Civil Engineering.
Mr. W. G. W. Reid	Director, Mechanical Engineering (Officiating).
Mr. N. S. Sen	Director, Traffic.
Mr. A. R. Edington	Director, Railway Stores (Temporary).
Mr. A. A. Brown	Director, Rail-Road Co-ordination (Temporary).
Mr. R. Proudlock	Director, Traffic (General) (Temporary).
Khan Bahadur Z. H. Khan	Director, Establishment II (Temporary).
Mr. Ram Gopal, C.I.E.	Director, Finance II (Temporary).
Mr. F. C. Badhwar, M.B.E.	Secretary.
Rao Bahadur R. V. Ramchandani	Deputy Director, Accounts.
Mr. M. E. Bartley	Deputy Director, Establishment.
Mr. K. L. Ghei	Deputy Director, Finance II.
Mr. K. C. Lall	Deputy Director, Mechanical Engineering I.
Mr. Thomas Kidd	Deputy Director, Stores I (Temporary).
Mr. Q. F. Rahman	Deputy Director, Civil Engineering I (Temporary).
Mr. C. Anwar Ali	Deputy Director, Stores II (Temporary).
Mr. L. G. Bigg-Wither	Deputy Director, Mechanical Engineering (Temporary).
Mr. R. Subbiah	Deputy Director, Mechanical Engineering II (Temporary).
Mr. E. L. Towner Jones	Deputy Director, Mechanical Engineering III (Temporary).
Mr. P. R. Agarwal	Deputy Director, Mechanical Engineering IV (Temporary).
Mr. B. Venkataraman	Deputy Director, Mechanical Engineering V (Temporary).
Mr. M. R. Carr-Hall	Deputy Director, Stores III (Temporary).
Mr. S. M. Raza	Deputy Director, Finance I (Temporary).
Mr. D. U. Rao	Deputy Director, Finance III (Temporary).
Khan Bahadur M. D. Sethna	Deputy Director, Traffic (Temporary).
Mr. I. S. Malik	Deputy Director, Traffic (Transportation) (Temporary).
Mr. H. L. Biswas	Deputy Director, Traffic (Statistics) (Temporary).
Mr. Anand Mohan	Deputy Director, Traffic (General) (Temporary).

Rai Bahadur P. C. Bahl	Deputy Director, Civil Engineering (Temporary).
Mr. H. D. Awasty	Deputy Director, Civil Engineering II (Temporary).
Mr. L. V. Pereira	Deputy Director, Civil Engineering III (Temporary).
Mr. D. P. Mathur	Deputy Director, Finance (Rail-Road Co-ordination) (Temporary).
Mr. J. E. Castellino	Deputy Director, Rail-Road Co-ordination (Temporary).
Mr. H. C. W. Westwood . . .	Deputy Secretary (Temporary).
Mr. H. W. C. C. Smith . . .	Assistant Secretary (on leave).
Mr. G. Rama Rau	Assistant Secretary (officiating).
Mr. J. S. Sequeira	Assistant Director, Traffic (Temporary).
Mr. Surjan Singh	Assistant Director Traffic (Commercial) (Temporary).
Mr. A. Hildreth	Assistant Director, Shipping (Temporary).
Mr. B. Arora	Officer on Special Duty (Reconstruction) (Temporary).
Mr. G. de P. Leeper	Officer on Special Duty (Exhibition) (Temporary).
Dr. Des Raj Malhotra . . .	Officer on Special Duty (Water-softening) (Temporary).
Major A. Lamb	Planning Officer (Wireless) (Temporary).
Mr. H. L. Carter	Planning Officer (Telecommunication) (Temporary).
Lt.-Col. E. Colvin	Planning Officer I (Temporary).
Major R. M. L. Lemon . . .	Planning Officer II (Temporary).
Mr. D. Williams	Planning Officer III (Temporary).

Attached Offices.

(Central Standards Office.)

Mr. E. Ingoldby, C.I.E. . . .	Chief Controller of Standardization (on leave).
Mr. L. N. Flatt, C.I.E., V.D. . .	Chief Controller of Standardization (officiating).
Mr. H. Wood Robinson . . .	Deputy Chief Controller of Standardization (Civil).
Mr. W. A. Nightingale . . .	Deputy Chief Controller of Standardization (Mechanical).
Mr. B. P. Hira	Assistant Chief Controller of Standardization (Specifications and Records).
Mr. T. E. St. Q. Stewart . . .	Assistant Chief Controller of Standardization (Mechanical).
Mr. K. P. Chatterjee	Assistant Chief Controller of Standardization (Civil).
Mr. H. Rideau	Dynamometer Car Officer.

MGIPC—L—X-61—14-2-46—1,000.

Books and Technical Papers published by the Railway Board.

BOOKS.

(1) Report by the Railway Board on Indian Railways. Published yearly, Price: Volume I—Report, Rs. 2-0-0 or 3 *sh.*, Volume II, Rs. 12-6-0 or 19 *sh.* (1943-44).

(2) Classified List of State Railway Establishment and Distribution Return of all Railways corrected up to 31st December 1944. Price Rs. 5.

(3) History of Indian Railways, constructed and in progress corrected up to 31st March 1939. Published sexennially. Price Rs. 4-10 or 7 *sh.* *3d.*

TECHNICAL PAPERS.

(4) Over 314 papers have been published by the Technical Section of the Railway Board's Office. The papers comprise:—

(*a*) Original descriptions of railway works and studies of railway problems in India and elsewhere.

(*b*) Reprints of articles from foreign engineering magazines.

(*c*) Reprints or abstracts of reports received by the Government of India on subjects connected with railways.

A complete list of the papers can be obtained *gratis* from the Chief Controller, Standardisation, Central Standards Office for Railways, New Delhi. A few of the more important Technical papers are mentioned below:—

Technical Paper.	*Name.*	*Author.*
No. 72.	The design of well foundations for bridges	(Compiled.)
,, 148.	Statistics of Railway working expenditure	G. DEUCHARS.
,, 153.	River training and control on the guide bank system	F. J. E. SPRING.
,, 215.	The Hardinge Bridge over the Lower Ganges at Sara	SIR ROBERT GALES.
,, 219.	Technical education in relation to railways in America	H. L. COLE.
,, 239.	The Central Control systems for the scheduling of operations in locomotive repairs workshops in England	H. H. SAUNDERS.
,, 242.	Railway Statistics and the Operating Officer	MAJOR F. H. BUDDEN.
,, 243.	How to judge the prospects of new railways	LT.-COL. L. E. HOPKINS.
,, 244.	Sleeper spacing and the effect of the new Permissible Axle-loads	A. F. HARVEY.
,, 245.	Report of the Indian Railway Bridge Committee on track stresses	
,, 247.	1st and 2nd interim reports of the Indian Railway Bridge Committee on Impact and Revision of the Bridge rules	
,, 249.	Operating Statistics and the Divisional Officer	MAJOR F. H. BUDDEN.
,, 250.	Axle-loads, Wheel Diameter and railheads dimensions	
,, 251.	A. R. E. and maintenance of Way Association's Impact tests on Railway Bridges	(Reprinted.)
	Description of the planning, Progress, Coaling and Engine Repairs, Schedule System introduced on the G. I. P. Railway Loco. Shops at Parel	F. G. S. MARTIN.
,, 256.	Notes on the preparation of railway projects	H. L. GLASS.
,, 259.	The estimation of Passenger earnings on new projects	A. LINES.
,, 261.	Tube wells on the N. W. Railway, 1925-27	J. WARDON.
,, 262.	Note on steps to be taken to permit of running the future large vehicles on Broad Gauge Railways, 1927	A. I. SLIEGH.
,, 263.	Note on composite Index numbers of Indian Railways	W. G. BARNETT.
,, 264.	Memorandum on Traffic Surveys	R. N. NICOLLS.
,, 266.	Principle of the Absolute Block System, 1929	L. H. KIRKNESS.
,, 267.	Flood Lighting, 1929	H. J. MULLENEUX.
,, 271.	Antiseptic treatment of Pinus Longifolia (Chir) for Railway Sleepers	KAMESAM.
,, 272.	The Stereographic Survey of the Shakagam	MAJOR KENNETH MASON (Reprint).
,, 273.	A Schedule system for the Control of Operations in Workshops, 1929	H. H. SAUNDERS.
,, 275.	An Enquiry into the Preparation of Periodic Financial Returns on the Railways of Great Britain Egypt, and Palestine, 1929	MAJOR WAGSTAFF.
,, 276.	Investigation into the Strength of Rail joints	H. HOWE AND L. H. SWAIN.
,, 277.	Description of the Cost Accounting Scheme introduced in the Locomotive Workshops at Moghalpura	A. E. HOWELL.
,, 278.	Notes on Tube Railway Construction	H. G. SALMOND.
,, 279.	Report on Track Practice on American and Canadian Railways	A. F. HARVEY.
,, 280.	The Installation of a Production system in the Locomotive Workshops at Moghalpura	A. E. HOWELL.
,, 281.	The Belt System of Repairs introduced in the Loco. Workshops at Kanchrapara	R. DE VERAIRWIN AND J. R. POTTER.
,, 282.	Note on " Fridera " a composition for reconditioning abraised spike holes in Railway Sleepers	S. KRISHNA AND T. P. GHOSE.
,, 283.	Description of a system introduced in the Stores Department of E. I. Railway with appendices	F. G. S. MARTIN AND A. R. A. HARE DUKE.
,, 284.	Notes on progressive system of wagon repairs as introduced in N. W. R. shops at Moghalpura	B. S. SINDHU.
,, 285.	Notes on the methods by which the provisions in the English Railway Act of 1921 were framed both from the points of view of the Railway Coys. and of Work—the compilers of the Act	E. A. SIMS.